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ABSTRACT

The aims of this project have been to collect and analyze information on existing Adult Basic Education (ABE) programs, to identify types of programs which are successful in job-related settings, and to recommend promising new models for job-related ABE. Eighty programs were selected as possible for the study. When it was found impossible to classify the programs since they exhibited too many different features, it was decided to study program features; 15 sites were chosen to be visited (Eastman Kodak Company, Los Angeles City Schools, NABTRANS, etc.) After analysis and interpretation of data collected during field visits and from document review, a set of proposed guidelines for job-related ABE programs was developed, as well as an illustrative model program, providing a concrete application of the guidelines. The study revealed a significant need for job-related adult education, which is not now being met. Few programs provide vigorous outreach, placement in a job or a skill training program, and post-instructional student followup. Program features were found here and there which could be combined into an effective job-related ABE program. Funds now exist which could be allocated to support these programs. (Author/EB)

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TM-WD-368

JOB-RELATED ADULT BASIC EDUCATION

VOLUME I

SUMMARY AND RECOMMENDATIONS

SYSTEM DEVELOPMENT CORPORATION

Prepared for

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JOB-RELATED ADULT BASIC EDUCATION

Volume I

Summary and Recommendations

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PREFACE

This report begins from the premise that better education can increase employment opportunities and reduce poverty. But the education needed is often more than just vocational education or specific skill training. Low literacy, lack of understanding of the world of work, and other barriers too often prevent the poor from acquiring or using vocational skills. And these barriers cannot be removed simply through the type of remedial elementary education which brings the student to the equivalent of the sixth or eighth or some other academic grade level. The education really needed is what we refer to as job-related adult basic education--the reading or arithmetic or social know-how or anything else which may be wanting (apart from specific job skills) before an adult has a reasonable chance of gaining and holding a decent, non-poverty-level job.

In this report, we analyze some current approaches to job-related adult basic education, argue that rather drastic changes in these approaches appear necessary, and present recommendations aimed at bringing about both short-range and long-range improvements. The report contains two volumes--a comparatively short and self-contained "action summary" volume, and a larger, more detailed backup volume. Their titles are:

Volume I. Summary and Recommendations

Volume II. Approach and Detailed Findings

Volume I can be read by itself as an account of the entire project and of its recommendations. Volume II is a supplementary volume which should be read only in conjunction with Volume I. Information regarding the availability of copies may be obtained from:

Miss E. Hopkins, Evaluation Division
Office of Planning, Research, and Evaluation
Office of Economic Opportunity
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System Development Corporation, Falls Church, Virginia, conducted this study under contract to the Office of Economic Opportunity during the period July 1970 - February 1971. We received guidance and information from a large number of persons and organizations and are much indebted to all of them for this assistance. Particular acknowledgment is due to our hosts at the fifteen operating adult basic education programs we visited. They were invariably helpful and informative. We also wish to acknowledge help furnished by representatives of the Office of Economic Opportunity, the U.S. Office of Education, and the U.S. Department of Labor. Major assistance in identifying significant existing programs was provided by Professor William S. Griffith and several associates in the Department of Education of the University of Chicago. In addition, Professor Griffith advised on all phases of project performance. The ERIC Clearinghouse on Adult Education, Syracuse University, assisted our review of existing program documentation, and specialized consultation was provided by staff members of the Syracuse University Policy Institute.

At the same time that this study was being carried out, several other somewhat related projects were in progress. Two that we particularly exchanged information and ideas with were a Survey of Adult Basic Education in Labor Department Manpower Programs, being conducted by the Bureau of Social Science Research for the Department of Labor; and a Study of Teacher Training for Adult Basic Education, being conducted by the Adult Education Association for the Office of Economic Opportunity.

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I. SUMMARY

A. BACKGROUND AND APPROACH

The aims of this project have been to collect and analyze information on existing Adult Basic Education (ABE) programs, to identify types of programs which are successful in job-related settings, and to recommend promising new models for job-related ABE. The project has focused on ABE as an aid to employability. Its practical purpose has been to identify and recommend workable programs which help lead to employment improvements such as getting a job, being promoted, or entering training for a better job.

During the project, we collected information on a large number of ABE programs which offered to illustrate job-relatedness and conscious developmental effort. We also selected several programs for additional on-site observation and data collection. We approached our review of current programs through the following steps:

1. Identification of candidate programs. We began by contacting a large number of sources of information on ABE programs, including federal government agencies and departments, several state departments of education, educational firms and publishers, industries, associations, libraries, and academic researchers. Our search was directed toward identifying job-related ABE programs which had been carefully designed and developed, which had data available on their effectiveness, and which showed concern for knitting together a comprehensive set of program components, including staff training, outreach, and placement, in addition to instruction. Approximately 80 programs were named as possible matches for our criteria.

2. Classification. We next attempted to classify programs into types or models. We found, however, that programs exhibited too many different features and resembled each other too little for the concept of "program type" to be useful. We therefore concentrated on program aspects rather than on total programs, and developed a schema of ABE program features.

3. Selection of programs to represent features. In order to pick a set of programs for further study which would represent all features of interest, we listed the unusual or especially emphasized features of our candidate programs, and analytically developed a minimum group which would enable each feature to be represented at least twice. We then confirmed the presence of reported features, and settled 15 sites to be visited.

4. On-site information collection. Field analysts used a brief checklist to ensure that complete and comparable data were obtained from interviews with a variety of staff members. Sponsors of the ABE projects visited were:

- Los Angeles City Schools
- Skill Advancement, Inc., New York City
- The Midwest Coop League, Chicago, Illinois
- University of Arkansas
- International Laborers' Union Local 423, Columbus, Ohio
- NARTRANS, Los Angeles, California
- Republic Steel Corporation, Cleveland, Ohio
- BOLT, Inc., New York City
- Project GO, Washington, D.C.
- New York Bell Telephone Company
- Atomic Energy Commission, Richland, Washington
- Oak Ridge Associated Universities, Tennessee
- Riegel Paper Company, Riegelville, North Carolina
- Eastman Kodak Company, Rochester, New York
- Rutgers University, New Jersey

Finally, all information collected during field visits and from document review was analyzed and interpreted for its bearing on the advantages and disadvantages of significant features of job-related ABE programs. Out of this analysis, supplemented by a consideration of widely agreed-upon principles from educational and management theory, we were able to develop the following:

- A set of proposed guidelines for the designers, developers, and operators of job-related ABE programs.

- An illustrative model program, providing a concrete application of the guidelines.

- A discussion of how to bring into existence either one or a number of programs adhering to the guidelines.

The present project was limited in its scope to a review of existing programs and existing information. Because of this limitation, our conclusions should not be accepted as being beyond question. We believe, however, that we have been able to define an important problem area with greater clarity than it has possessed in the past. We have proposed practical solutions which are reasonably well justified on the basis of presently available information, and which have self-correcting factors built into them. We have outlined procedures and structures for individual programs which will lead to effective self-evaluation and self-improvement. We have proposed two-way linkages between local programs and centers for research and development which will lead to the generation and practical application of needed new knowledge. And we have described methods for interaction and exchange of personnel among programs to enhance communication, evaluation, and program improvement. If our solutions are wrong or incomplete, their defects will be best discovered by trying them out. If they are tried in the careful and gradual way we recommend, an important social problem will be alleviated and at the same time knowledge of how to do it better will be forthcoming. If they are not tried, approaches to job-related adult basic education will remain fragmentary and haphazard for a long time into the future.

B. FINDINGS AND CONCLUSIONS IN BRIEF

Our principal conclusions and recommendations are summarized here. Further explanation will be found in the other chapters of this volume, and backup is provided in Volume II.

1. A significant need exists for job-related adult basic education. This need is in addition to and separate from needs for vocational education and skill training, but it is not for conventional grade-level achievement as such. Instead, it is for basic abilities which will actually assist students toward stable employment or job advancement. The particular abilities needed will vary from person to person and from job market to job market.

2. To a large but not precisely known extent, the need for job-related adult basic education is not now being met. Few programs explicitly try to meet it. Few programs carry out all the necessary and desirable functions, such as vigorous outreach, placement in a job or in a skill training program, and post-instructional student follow-up, which are required by a complete attempt to meet it. And few programs are able to devote adequate effort even to finding out how well they are doing, much less to regularly improving materials and procedures on the basis of careful program evaluation.

3. Program features now exist which could be combined into complete and effective job-related adult basic education programs. For the most part these features are found here and there in individual programs, but rarely are they brought together and organized into a unified, comprehensive whole. Theoretical, administrative, and fiscal underpinnings alike tend to be inadequate. Features needing emphasis and integration include management, development, evaluation, outreach, and placement, in addition to instruction. Chapter II below offers guidelines which we believe necessary for the effective development and operation of any job-related adult basic education program.

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4. Funds now exist which could be allocated to support effective job-related adult basic education programs. We recommend initiation and continuing support of the phased development and operation of selected exemplary individual programs. We also recommend that individual job-related adult basic education programs cooperate in an organized, well-planned fashion with each other and with centers for research, development, and information dissemination. As one method for selecting programs for support, organizations should be invited to bid competitively to conduct job-related adult basic education programs. Each bidder should specify local adaptations to the guidelines of this report, should propose detailed schedules and financial plans, and should credibly establish capability to develop, evaluate, and improve the proposed program.

II. PROPOSED GUIDELINES FOR JOB-RELATED ADULT BASIC EDUCATION PROGRAMS

A. WHY GUIDELINES ARE NEEDED

This project's considerations led us to a very general set of "rules". These are guidelines which we believe should be followed by the designer or developer of any new or substantially revised program for job-related adult basic education; they can also be used as a check-list for identifying needed improvements to existing programs.

If these guidelines are followed, no essential function will be overlooked, and no component or feature will be emphasized to the detriment of the total program. Their purpose is to assure that a program is comprehensive, integrated and complete.

B. PROGRAM GOALS

- Program goals should be specifically stated, with relative priorities clearly indicated and with characteristics and numbers of students to be affected in various ways spelled out. Expected student starting points and ending points should both be stated. Program goals, and not just student goals, should be framed in behavioral or operational fashion, so that program accomplishment can be assessed and program improvements devised.

- The highest priority goal for job-related adult basic education programs should be to provide for students whatever skills and attitudes, apart from actual vocational skills, may be necessary to secure employment with a reasonably assured annual income above the poverty level. Other goals with lower priorities may be to provide consumer or life or recreational skills. Goals stated simply in terms of conventional educational attainments (grade levels or test passing)

should usually but not always be of very low or zero priority, depending on the degree to which employment in particular circumstances actually depends on these conventional standards rather than on job performance criteria.

- Program survival, stability, and manageability are extremely high priority matters for attention by the overall program director. These are facilitating goals which must be achieved in order for the program to have much probability of achieving its substantive goals. However, facilitating goals must not be allowed to become all-important. Program survival is of no value if it necessitates giving up high priority educational and social goals.

C. PROGRAM COMPONENTS

- No program should be designed as a static entity. The dynamics of its initial development and of its ongoing evaluation and improvement should be included in its design.

- No job-related adult basic education program should be designed as an instructional program only. Student recruiting must be included in program design, and so must be helping students to achieve their post-instructional goals. In some cases, recruiting or job placement may be accomplished indirectly, by delegation to other programs such as, for example, manpower development programs. However, responsibility for assuring the adequacy of delegated functions must be retained by the ABE program.

- Five program areas must be present and effectively combined into an integrated whole if a program is to succeed in meeting the needs of its clients. They are:

- Overall Management, including policy formulation, securing funding and community support, comprehensive planning, design verification and integration, top staffing and supervision, and administrative services.

- Program Development, including requirements analysis; initial design; acquisition and improvement of staff, materials, equipment, and facilities; pilot test; and design improvement.

- Collection, Analysis, and Evaluation of information on program achievement.

- Outreach and Placement, including recruiting and counseling of students; placement in jobs or in skill-training programs; follow-up student counseling; and non-instructional student services.

- Instruction of students; and management of learning activities.

Figure 1 depicts the major components and relationships of a job-related ABE program following these guidelines.

D. PROGRAM SIZE, UNITY, AND DIVERSITY

- Every program should be large enough (or at least effectively linked with other programs into a large enough total) to make possible:

  - Funding and staffing stability over quite a few years.

  - Reasonable allocations to non-instructional functions such as outreach, placement, program development, evaluation, improvement, and management.

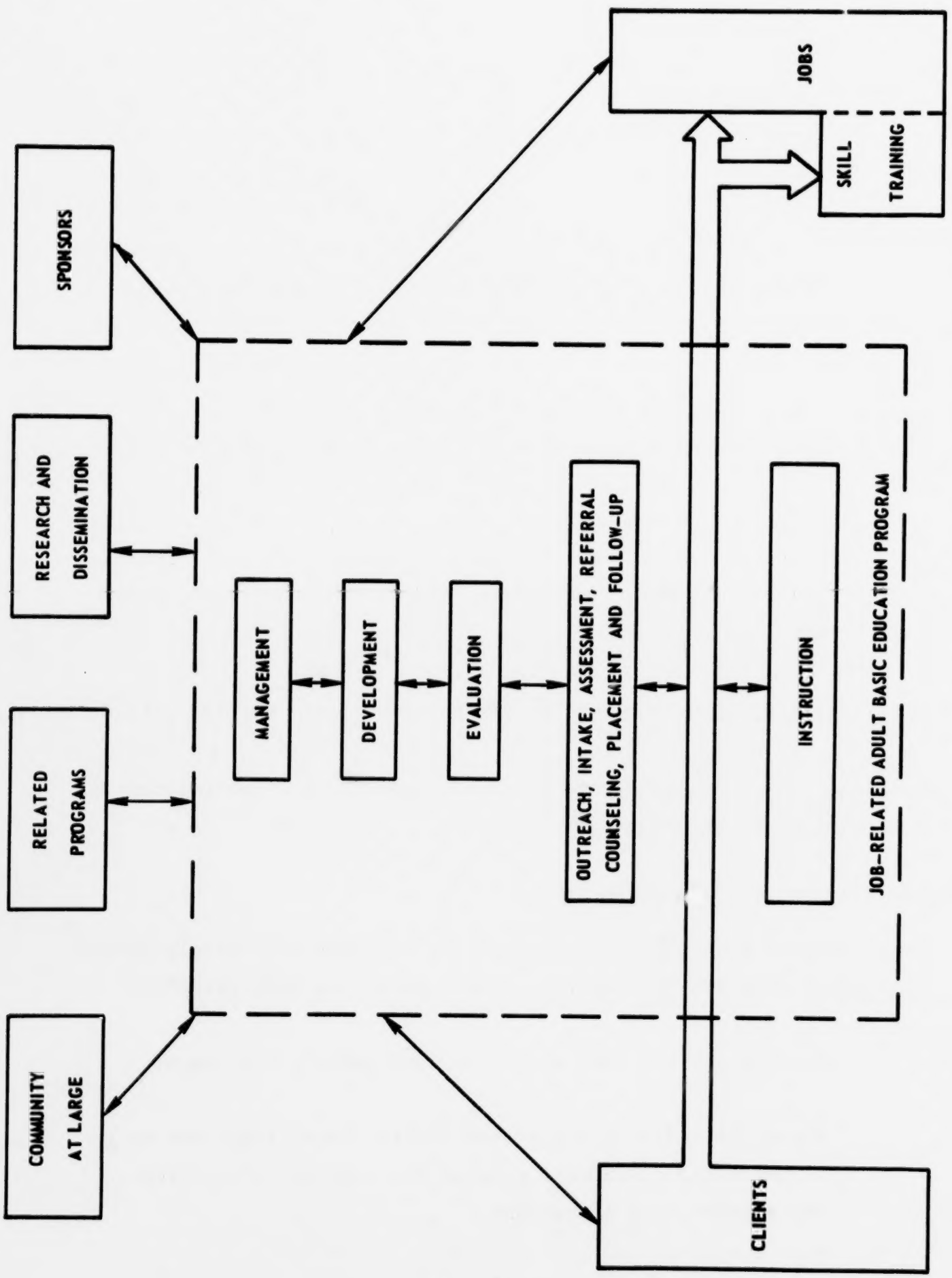

Figure 1. Program Components and Relationships

- Overall direction of each program should be unified, even though support and funding are from multiple sources.

- Supporters of several or many job-related ABE programs (such as large companies, unions, states, or the federal government) should not insist on detailed standardization of programs, but should call for each individual program to carry out:

    . Explicit and responsible program development, management, evaluation, and improvement.

    . Advance planning of program improvements, including explicit statements of what is to be done, how it is to be accomplished, and what results are expected, along with a complete and detailed plan for evaluating actual consequences and for using the information obtained for further program design decisions.

    . Publication, for the use of other programs, of design decisions and of the results of evaluations.

- Within each large program or group of programs, <u>decentralization</u> should be arranged in order to make possible the meaningful contribution of local participants (including teachers, local supervisors, employers, student representatives, etc.) to the design and evaluation of program improvement, and in order to encourage independent and competitive innovations.

- Decentralized programs should cooperate with each other in several ways. They should exchange information ideas, and personnel. They should jointly work with a <u>research and dissemination organization</u> to

facilitate research into high priority operational problems and to make widely known the results of ongoing program activities.

E. RELATIONSHIPS OUTSIDE THE PROGRAM

- ABE programs with employment goals must be actually and visibly linked to student futures which extend, through as many employment-training-educational stages as necessary, at least as far as an assurance of stable employment at an above-poverty income level.

- Employers must participate in job-related ABE programs at least to the extent of making initial placement or job advancement possible for program graduates. This would include participation in job analysis and job performance evaluation as needed for program development and improvement. In some types of programs, employers should offer on-the-job training, to be integrated with ABE. In some programs, employers may provide, in whole or in part, facilities, equipment, staff members, compensation for students, or other program support.

- Unions, when present, should participate to facilitate and improve job placement and the relations between job performance on the one hand, and education and training on the other. In some cases, unions may assist with facilities, equipment, staff members, or other program support. Jointly managed union-employer education funds may be available.

- Programs can be designed in which schools, colleges, or consortia provide selected program elements such as overall management, staffing, facilities, or funding. In this type of case, each program must be designed to protect itself against existing simply as a degraded version of the institution's main enterprise.

- Each program should appeal to students (and their families and friends) as being worthy of adult involvement. It should have status, perhaps by being associated with a college or by being known and designated as a program leading to higher positions such as technician or foreman.

- Each job-related ABE program needs to develop a reputation within the community for success.

F. PROGRAM DEVELOPMENT AND IMPROVEMENT METHODOLOGY

- To develop a large number of programs exemplifying the foregoing guidelines, an evolutionary developmental methodology should be adopted. As each individual program begins, most of its effort should be on development and evaluation, with a rather small operating program maintained primarily to test evolving design concepts. Initial development should be restricted in scope to probable low-cost high-benefit areas.

- Development should take advantage of pre-existing materials, procedures, and people adaptable to ABE, and should take advantage of additional resources and innovations as they become available.

- All training and other support needed by actually available staff members must be planned and provided (and of course evaluated and then improved).

- Program evaluation should be both internal to the program and external. Evaluation should be built in as an essential program function, not just assigned to an outside evaluator. Independent outside evaluation by itself is unlikely to lead to program improvement and should be limited to use for verification of internal evaluations, for research, and for policy level planning.

G. INSTRUCTIONAL CONTENT AND PROCEDURES

- Job-related adult basic education should include all education, except skill training, needed to obtain and hold a decent job. It should contain a mixture, in proportions determined by varying circumstances and particular needs, of reading, writing, arithmetic, speaking, grooming, job habits, self-confidence, civil rights and duties, social relations, hygiene, consumer skills, and any other necessary topics.

- Learning activities should meaningfully relate to the real lives of actual students. Abstract rules should be kept to a minimum. Job-related materials and activities should be used primarily for students already highly motivated toward particular jobs.

- Instructional procedures, materials, equipment, etc. should be oriented to the particular adults to be instructed. The total program should be immediately meaningful to these adults, should be as enjoyable as possible, and should not resemble a program for children.

- A repertory of individualizable instructional materials should be available. As resources permit, a wide variety of commercially-developed materials should be used, as well as those developed locally.

- The learner should be given as much responsibility as he can handle for his own learning goals, methods, evaluation, rates of progress, and materials.

- Positive reinforcement methodologies should be used; "pass/fail" and grades or test scores are for the most part irrelevant. Each student's progress toward his own and program goals should be acknowledged, but invidious comparisons with the progress of others should be avoided.

- Although learning is individual, it takes place in and is highly influenced by its social context. Students should be grouped for effective mutual assistance and for social reinforcement of individual motivations. When possible, learning groups should contain students with similar backgrounds and goals but with somewhat diverse achievement levels. It is desirable for each group to include both newer and older students. Newer students should be assisted by the older students, to their mutual benefit and encouragement.

H. PROGRAM STAFFING

- Use of paraprofessional teaching and counseling aides from the students' community is desirable to assist with individualized learning activities, to promote communication, and to credibly exemplify the possibility and value of success to the student.

- In general, as many staff members as possible (both professional and paraprofessional) should be direct or indirect representatives of the program's target population, to assist student motivation and communication, and to provide inputs to program evaluation and improvement.

- Staff requirements include ability, responsible commitment to a developmental methodology, rapport with students, and (for management, development, evaluation, and placement) rapport with employers and outside organizations. Conventional credentials and teaching certificates are of no direct importance. Willingness and ability to participate in ongoing program evaluation and improvement are very important.

III. BASIS FOR THE GUIDELINES

A. HOW THE GUIDELINES WERE IDENTIFIED

The previous chapter presented a set of proposed guidelines for job-related adult basic education programs. In deriving them, we were influenced as much by what our examination of existing programs failed to show as by what we found.

This project did not set out to measure existing programs against any arbitrary standard. But, from review of program documentation, and consideration of generally-accepted ideas about education and management, a minimum set of functions was identified as being necessary to a complete program; this minimum set served to direct our information collection efforts.

That we did not find something our judgement told us we ought to find became a project finding, and was incorporated into the process of developing the guidelines. The reasons behind these guidelines, as they emerged during the course of the present project, fall generally under the following headings: Individual and Social Goals; Student Characteristics and Abilities; Making Education Meaningful to Students; and Program Development and Management Considerations.

B. INDIVIDUAL AND SOCIAL GOALS

Here only two rather simple and widely agreed upon points need to be made--that individuals differ endlessly in their goals and in the priorities among their goals; and that the social goal of job-related adult basic education is primarily economic, not educational. It then follows that job-related ABE should be thought of as a means rather than as an end in itself, both for society and for the individuals it is to serve. This is not a startling statement; yet it has profound consequences. To be successful, a job-related ABE program has to fit in with highly diverse individual needs and goals, and

it has to contribute effectively to the social goal of student employability. Achievement of any given academic grade level is of no direct significance. Standardized curricula and uniform instructional procedures will meet few program needs or student needs. In general, the differences between job-related ABE and conventional elementary schooling should be expected to be very great. For job-related ABE, individual student goals will be respected, and ways will be sought to relate them effectively to program goals. And since program goals emphasize employment, explicit linkages between the program and jobs will be developed and maintained.

C. STUDENT CHARACTERISTICS AND ABILITIES

In addition to heterogeneous goals or wants, students in job-related ABE programs show great diversity in their characteristics and abilities. They should be expected to start from different points, aim at different goals, and move at different speeds.

What ABE students have in common is that they are adults, and that they have not acquired an adequate education. Many of them are thoroughly familiar with school and have no desire to repeat painful or boring or fruitless academic routines. An unknown proportion may have learning disabilities requiring unusual approaches, and for these extensive research and experimentation may be necessary. But this project discovered no evidence that the majority of persons who need job-related ABE cannot benefit from programs which respect their adult status and desires, and which are based on careful application of currently known educational and management principles.

Available evidence also indicates that students do not advance very far during the usual ABE course--perhaps one or two grades if grade level measures are taken. Such a change is unlikely, by itself, to improve very markedly the ABE graduate's employability. It does, however, impart a momentum which will continue its effect if linkages are established with post-ABE activities.

D. MAKING EDUCATION MEANINGFUL TO STUDENTS

Although students in job-related ABE programs differ widely as individuals, their natural desire for group membership, and the influence, by example, of members of groups they identify with, can be powerful aids to recruitment and learning. Programs should therefore seek ways of carrying out individualized learning in a group context. Students should be able to perceive the program as theirs--as being supported by their own community, as being staffed and attended by people "like" them, and as leading to success for members of their own group. In addition, learning activities should involve cooperation among students, including both informal assistance and somewhat formalized tutoring procedures. Tutoring fits well into situations where students are at different levels. For example, in a program in which students can enter and leave whenever they, as individuals, are ready, newer students can be helped by students who have been in the class for a while--indicating to the "older" student that he has succeeded, and to the newer student that he can succeed.

For students in job-related adult basic education programs, education should be present-oriented and near-future-oriented rather than oriented toward a distant future or to remote possibilities. And it should be concrete, real, and active rather than abstract, symbolic, and passive. Reading and arithmetic, for example, should be learned for what they contribute to solving real (or at least realistically simulated) problems of actual ABE students--not as formal exercises for general application to a large class of contingent futures. Of course, reading and arithmetic will be applicable to an endless number and variety of contingent futures, but that's not how they should be taught or learned.

Since adults are constantly being confronted with written language and (usually to a lesser extent) with problems in the relationships among quantities (money, time, weights, and measures), ABE should have no trouble in being immediately

relevant to life. All that is needed is to keep it close to the individual students' own situations, and to let abstract rules (such as parts of speech, syntax, and algebraic representations) be kept to whatever minimum grows naturally out of and genuinely illuminates these particular real-life problems of communication and computation.

Even for job-related ABE, the world of jobs and work may need to be de-emphasized in the instructional program. If an ABE student is presently employed but doing poorly or not advancing because of basic educational deficiencies, real sources of work-relevant problems for ABE are obviously available. For the unemployed or underemployed student who needs ABE to get a now unknown job, the sources are not so clear. Should "job-related" materials be used at all, or should concentration be on recreation and life skills? Should a job be simulated and trained for, with ABE built into the skill training? The answer is that it largely depends on the student's motivation. If a student is genuinely interested in a certain job (i.e., if the job is <u>alive</u> for him, and not just an expectancy of paid drudgery, entailing absence from present more or less delightful or at least tolerable pursuits), then ABE plus skill training makes sense. Otherwise, ABE might be better confined to recreation or to life skills, or to anything <u>alive for that student</u> rather than deadly to him.

E. PROGRAM DEVELOPMENT AND MANAGEMENT CONSIDERATIONS

Job-related ABE programs are complex, they are adventures into partly unexplored territory, and they are not inexpensive. They involve comparatively large numbers of people, varying circumstances, imperfect techniques, and incomplete knowledge. And the money available never seems to be enough to meet all needs. For all these reasons, job-related ABE programs should be carefully designed and managed, and they should have built into them explicit capabilities for evaluation and improvement, based on reliable information on all significant program aspects and consequences.

If an ABE program is looked at as a complete system, its components or subsystems should include provision both for operating functions (instruction, outreach, student placement, and so on) and for overhead functions (management, development, and evaluation). But a reasonable proportion needs to be maintained between operation and overhead. Only the operating functions have any direct or immediate value to students and to society, so the overhead functions should use as little as possible of total available program resources. Up to a point, therefore, there are great advantages to consolidating small programs into single large programs so that they can economically support overhead activities of sufficient magnitude to do what is actually needed. Small programs will rarely have resources available for systematically developing, evaluating, and improving all of their own staff members, instructional materials and methods, recruiting and placement procedures, and so on. But small programs can be combined until they do have the resources. And if the combination achieves a unified management, it will be able to direct its resources effectively.

On the other hand, very large programs have disadvantages as well as advantages. They tend to become unresponsive to diverse local needs; they tend to act as if such overhead functions as information collection were ends in themselves rather than devices for bringing about operational improvements; and they are difficult and expensive to bring into existence and change. Size and configuration guidelines for job-related ABE programs should therefore include provision for (a) a size sufficient to support, as a minimum, three full-time "overhead function" professionals to be concerned respectively with overall program evaluation, development, and management; (b) decentralized and gradual development of separate programs up to effective size; and (c) cooperation among separate programs and with research and dissemination organizations to handle functions such as research, publication, and personnel exchange which remain beyond the resources of all but extremely large programs.

The most serious conflicts between operating functions and overhead functions arise over the issue of program funding and survival. This project's search for exemplary programs brought many to our attention that had already ceased to exist, and there were many others uncertain of surviving for long in the future. In such cases, ABE directors may well devote their entire time to marketing program services or to seeking grants or other types of financial support for the coming year. (Or, if they have given up hope, they will be looking for new jobs for themselves.) Nearly everything else is then comparatively neglected, and the likelihood of effective program operation and improvement is much reduced.

Without reasonably secure funding arrangements, job-related ABE programs can be neither well-developed nor well-maintained. This does not necessarily imply either that more money is needed for ABE than is now available, or that each job-related ABE program should have only one or two sources of funds. What is important is that programs be designed to take care of funding problems without neglecting other program functions. If reliance must be placed on many donors or customers, then fund-raising will probably require extra overhead effort and staff, which in turn will require either additional funds or consolidation with other programs to ensure proper support for program operation, development, and evaluation.

In some types of program development efforts, research activities are carried out to establish program design specifications which are then field tested, revised, and implemented on a large-scale or "production" basis. We view this pattern of development as inappropriate for job-related ABE, for the reason that specifications common to many programs cannot be expected. Local situations, including student types, job markets, and relations with other programs and organizations are too varied. In our review of existing ABE programs, we found no two alike. One implication is that job-related ABE programs need to evolve individually--each one developing, evaluating, and

improving its effectiveness in its own situation. But it does not follow that individual programs cannot or should not try to learn from each other. They can learn on two levels. First is the methodological level, represented by responsible commitment to a development-evaluation-improvement approach. Second is the specific level, represented by knowing what worked or didn't work for another program--so that if the programs seem similar enough, adaptations (not just transfers) can be tried or avoided.

Research for job-related ABE programs is an essential aspect of program development and management. Research should not be expected to develop or demonstrate complete design specifications applicable to many individual programs that differ significantly from one another. It can investigate student characteristics, learning techniques, and follow-up methods in particular programs, and can devise and evaluate particular program improvements. Skillful choice of research objectives will probably result in discoveries more or less adaptable by other programs to their own circumstances.

IV. AN ILLUSTRATIVE MODEL PROGRAM

A. AN ILLUSTRATIVE MODEL IS NOT A BLUEPRINT

The guidelines in Chapter II above represent the general rules this project has led us to believe should be followed by any program for job-related ABE. But since the rules are intended to cover a wide diversity of particular programs, they are necessarily rather abstract. To give them a more concrete meaning, the present chapter provides an example of one possible way to follow the guidelines. The result will be an illustrative model rather than a blueprint. Other models can and should be constructed which differ from our illustration in many aspects of size, schedule, setting, and so on.

In describing the illustrative model, we discuss in order the five program components presented in the guidelines--management, development, evaluation, outreach and placement, and instruction. We also discuss possible costs and developmental phasing.

For purposes of this illustration and its accompanying cost exercise, we are imagining a minimum complete program--that is, one that has all overhead functions fully represented, but (when developmental phasing is over) only one professional staff member assigned to each overhead function. We are also supposing a scheduling situation in which all students attend one building 6 hours a day and 5 days a week for 6 weeks. This schedule would not be suitable, of course, for all programs. Programs can be larger and, by increasing unit costs, they can be smaller. Many programs will need less intensive or more flexible schedules, and many will need to be geographically dispersed.

B. MANAGEMENT

Management's role is to assure proper relationships of the program both externally and internally. External matters include securing funds, relations

with other organizations, and general community support. Internal matters include verification and integration of program design, along with selection and supervision of top staff members. Common to both are policy formulation, comprehensive planning, fund allocations, and administrative services.

As a bare minimum, the management function requires a full-time, fully qualified project director and a full-time capable administrative assistant. The project director must be in charge of and responsible for comparative allocations of project funds to all functions, including management. He will work within whatever regulations and guidelines are given to him by his funding sources and by any organizational superiors, but he should have flexibility to decide, if necessary, whether to increase or decrease allocations to such functions as marketing and public relations.

In many cases, the management function will also require the services of a policy board to act in either an advisory or a governing capacity, depending on the legal and organizational context of the ABE program. The members of the policy board should be senior representatives of those groups and organizations most relevant to the existence and success of the ABE program.

C. DEVELOPMENT

Developmental functions include:

- Requirements analysis--identification of the numbers of students to be reached over a specified period of time, the skills and attitudes which they must gain during their participation in the ABE program in order to qualify for the next stage available to them (skill training or employment or promotion), and the diverse characteristics which various students will have when they enter the program.

- Initial design--specification of all program characteristics and allocation of detailed roles to recruiters, counselors, teachers, aides, students, learning activities, materials, and so on.

- Implementation planning--scheduling and costing of all phases of program development.

- Staff selection and training--including development of orientation and detailed training programs for recruiters, counselors, placement specialists, teachers, aides, and supervisors.

- Acquisition and improvement of materials, equipment, and facilities. This illustrative model assumes that already available instructional materials can be combined by competent program designers and instructional staff into reasonably effective initial packages, and that improvements to instructional materials can be made on an ongoing basis.

- Pilot test--preliminary trial, on a partial or simulated or sheltered basis, before actual program operation, of program elements and their interactions.

- Improvement of program design--revision of the overall initial design from time to time, on the basis of the results of program evaluation.

Staffing needs for carrying out all these developmental functions will not be constant. In the initial phases of development, a reasonable minimum would be a full-time staff of four--a director of development, a staff and procedures development specialist for outreach and placement, an instructional staff development specialist, and an instructional procedures and materials development specialist. Later, the outreach and placement specialist and one of the instructional specialists could transfer to assume operational rather than developmental roles, leaving a permanent development staff of two professionals. One or more paraprofessional aides might also be assigned to assist with preparing and pilot-testing proposed innovations.

D. EVALUATION

The purpose of evaluation is program improvement. Information needs to be collected and analyzed on program operations and their results, in such a way that the information can be used. It will be important to know numbers of students entering and finishing the program, numbers employed, durations of employment, pre-program and post-program annual incomes, and times and costs of various program functions. And it will be equally important to get at reasons behind the numbers and to develop well-informed guesses as to what works, what doesn't work, and what might work better.

Multi-program standard reporting systems can be helpful in collecting and aggregating statistics (numbers, dollars, durations) but they are of relatively little direct value for individual program improvement where information needs are basically program-specific rather than general.

A critical part of evaluation will be job-performance analysis (or, if the next stage after ABE is skill training, training analysis). Since ABE is intended to prepare students for jobs or for training leading to jobs, evaluation-for-improvement must center around the details of what students need to do and what they actually can or cannot do during employment or skill training. Similarly, information will be required on the effectiveness of outreach and of instructional activities.

Much of the information needed will be descriptive and non-quantifiable. Much of it, indeed, may be ordinary commonsense information whose importance for the program has been overlooked. In its collection, contacts should be made with students, employers, and community representatives, in addition to program staff members. Evaluation can be assisted by check-lists, interview formats, and so on, but large parts of it will remain intuitive and judgmental, not subject to precise rules.

Evaluation of the comparative cost-effectiveness of various program features is of great importance. Cost information must be kept accurately enough for analyses to be made of rates of expenditure for separate program functions (management, evaluation, outreach, instruction, etc.), and also for detailed features (recruiters, audiovisual aids, non-instructional services to students, etc.). In this way, a basis will be available for possible recommendations for reallocations of funds to different functions or features in order to improve overall program effectiveness.

Evaluation-for-improvement is best carried out as a cooperative effort involving a part-time commitment from many staff members. This is desirable for two reasons--to take advantage of staff members as information sources and interpreters, and to involve them in program design improvement and in implementing changes. However, a full-time evaluation specialist is also required, to ensure that evaluation is well-planned and carried out. In addition, an evaluation aide is desirable.

E. OUTREACH AND PLACEMENT

"Outreach and placement" is used here as a label for all non-instructional activities relating directly to students, including outreach, recruiting, student assessment, counseling, program placement, job placement, skill-training placement, and any student support functions which may be offered such as personal advisement, assistance with transportation, day care and medical services, and so on. These are extremely important functions and in the present illustration require a large part of the program's budget and effort, since the greatest needs for job-related ABE are among those people whose circumstances may make them hardest to reach.

Budgets for outreach and related functions will be considerably influenced by the degree to which student support services are necessary to achieve program goals. These may include assistance with day care or transportation,

placement in part-time employment while attending ABE, or even direct payments or stipends to students for class attendance or achievement. Our illustrative model gives no uniform stipends, but does have some money available for selective financial assistance ("scholarships") to unusually hard-pressed students.

One of the most effective tools for outreach will be the program's reputation within the community. This of course cannot be present in the beginning, but will take time to develop. Accordingly, it is not unreasonable for an ABE program to defer for a few years its attempts to reach the most difficult segments of its target population. An aspect of evolutionary development would be to start with those needs that are easier to satisfy, although aiming at meeting more difficult needs as soon as possible. Following through on this strategy, our illustrative model has an outreach, counseling, and placement staff in a ratio of one specialist plus one paraprofessional aide for every 30 students. This is a rather lean allocation. Suppose that staff time is divided into thirds--one-third each to counseling current students, to placement and follow-up, and to recruiting. If students stay in the program an average of 180 hours, the counseling time available for each on an individual basis will average 2 hours of attention to each student by the specialist, plus another 2 by the aide, for a total of 4 man-hours. On the same assumption, an average of 4 man-hours would be available to each student for follow-up, plus 4 man-hours for recruiting. However, not all potential students contacted will actually enroll in the program. The significance of the 4 hours for recruiting is that one student must be enrolled for every 4 man-hours of work.

F. INSTRUCTION

This model conceptualizes instruction as the management of learning activities--arranging for events involving the student to take place in such a way that he learns new skills and develops new attitudes. Conventional teaching will play

a comparatively insignificant role. Learning activities will be selected from among the following:

- Individual student interaction with a workbook or text or machine-presented lesson.

- Small group cooperation on an assignment.

- Tutoring of individual students by teacher, aide, or advanced fellow student.

- Role-playing simulations of life and employment situations.

- Student construction of learning materials and activities.

Students, as adult learners, will be given prominent roles in the organization and conduct of these learning activities. The teacher's role is that of overall supervisor and resource specialist, combined with leadership, inspiration, and salesmanship as needed.

The student himself should take part in setting his own goals in some way meaningful to him as an individual (say to read the sports news, or a particular magazine, or want-ads, or his children's school books, or technical instructions for operating equipment). The student should also be encouraged to judge how well he has progressed toward his goal, and whether he has completed what he wanted to do. Of course the teacher and the counselor will cooperate in the goal formulation process and in the selection of activities leading to it. They will certainly try to reinforce those aims and activities which they expect to lead most effectively to the program's educational and employment goals. But they will be as supportive as possible. Goals and activities really desired by the student will not be absolutely prohibited (unless they

interfere unduly with the learning of other students), although they may be recommended against by means of friendly reference to actual past experiences.

An instructional team of one teacher and one aide will be able to handle around 15 students in a program of this type--perhaps more after materials, procedures, and staff have been developed over several years. During a six-hour class day, the teacher and the aide could each spend an average of 12 minutes a day with each student on an individual basis, and still leave half of each day free for being involved in group activities.

The schedule for our illustrative model program is based on an instructional unit or "class" of 15 students, one teacher, and one aide, in session six hours a day, five days a week. However, the class changes its composition every week. Two or three students enter the program each Monday and two or three leave each Friday. The average stay will be six weeks--some more, some less. At any one time, students will be working at all program levels. The weekly schedule has this organization:

Monday morning. New students arrive and are introduced to all other students. Each new student is assigned a fourth-week student as his personal tutor, who will stay with him for three weeks (more or less, depending on individual rates of progress). The teacher, a counselor, the new students, and the tutors spend an hour or two all together developing goal statements and activity paths suitable to the new students. Then each new student starts out on his path. In the meantime, all other students have been following their own schedules and the aide (and of course previously assigned tutors) have been available to assist.

Monday afternoon through Friday morning. Days are generally set up on a rough pattern, not determined by bells or precise numbers of minutes, but by needs and opportunities as they arise, superimposed on a general

expectation that work proceeds from 9-12 and from 1-4, with individual breaks as desired. The hours of the day will be allocated approximately as follows:

9-10 and 1-2. Individual work and individual conferences of students with teacher or aide. Placement and advisement conferences with counselors are also scheduled for these times.

10-11 and 2-3. One-on-one student tutoring. Teacher and aide interact selectively.

11-12 and 3-4. Small group sessions, including simulations. There can be 2 or 3 of these simultaneously. Teacher and aide interact selectively.

Occasionally larger group sessions or demonstrations will be held. For example, when a student-created simulation has been particularly successful, it can be repeated for the entire class of 15 or for an audience of several classes combined. Usually, these sessions will be organized and led by the students themselves.

Friday afternoon. This is graduation and placement time. The last hour of the day will be a group session for the entire class (perhaps combined with other classes) in which graduating students present their plans for the future. A student-led discussion will be included.

G. POSSIBLE COSTS AND DEVELOPMENTAL PHASING

To get an idea of costs, suppose that the model described above is organized and staffed to build up to an eventual year-round operation with an average of 150 students always present. This would require 10 class units of 15

students each. Some other figures for the fully-operating model would be:

- The average student attends 6 hours a day, 5 days a week, for 6 weeks. Average total, 180 hours per student.

- There will be approximately 8 groups of 150 students during the year, for an annual total of 1200 students. (A program for this many students seems large in comparison with existing ABE efforts, but is small in comparison with estimated needs.)

- Students receive no fixed stipends, but some financial assistance is available for student support. Most students will attend without financial aid, but as much as $150 can be given in special cases. For costing purposes, we allot an average of $20 per student.

- Books, tests, and supplies cost $20 per student.

- Teachers and teaching aides are provided at the rate of one each per 15 students. Total, 10 teachers and 10 teaching aides.

- Counselors and their aides are provided at the rate of one each per 30 students. Total, 5 counselors and 5 aides.

- Five senior professionals are provided: a program director plus directors for development, for evaluation, for outreach and placement, and for instruction.

- An administrative assistant and an administrative aide are provided.

- Average annual salaries are:

10 teachers @	$ 9,600	=	$ 96,000
5 counselors @	9,600	=	48,000
5 senior professionals @	15,000	=	75,000
1 administrative assistant @	9,600	=	9,600
16 aides @	5,200	=	83,200
			$311,800

Total annual program costs then might be something like:

Salaries	$312,000
Fringes @ 15%	45,000
Rent, etc. @ $100/room/month (10 classrooms, 4 large divided offices) $1,400 x 12 =	17,000
Books, tests, and supplies @$20/student	24,000
Furniture and equipment @ $50/room/month	8,000
Student support @ zero to $150/student (average, $20/student)	24,000
Telephone, transportation for outreach and counseling, duplication, etc.	24,000
	$454,000

This works out to an approximate cost of $380 per student, or to $2.10 per student instructional hour. These cost figures compare favorably with those associated with most programs reviewed during the present project.

Depending on the degree to which it is able to build on existing components, and unless there is strong local pressure for early visibility and results, a program such as that just described would benefit from phased development over several years to bring it to full operational capacity. Let us suppose for our illustrative model, that no program pre-exists, and that a beginning is made "from scratch". Four somewhat overlapping developmental phases will be involved:

I. Planning, Staff Build-Up, and Initial Staff Training

II. Development and Testing of Materials and Procedures

III. Initial Operation and Initial Evaluation

IV. Ongoing Operation, Evaluation, and Improvement

Our model could require two years for the first three of these phases, as illustrated in Figure 2. Phase I starts at the beginning of the first year and continues through the second year. Phase II begins soon after Phase I and also continues through the second year. Phase III is scheduled for the entire second year, and Phase IV begins at the start of the third year. During the first year, only a few students will be involved in the program, on a pilot test basis. In the second year, a gradual build-up toward full strength will take place. Costs for development are estimated at $100,000 for the first year and $250,000 for the second year, on the way to the $454,000 estimated above to be required for ongoing program operation (Phase IV--third year and after).

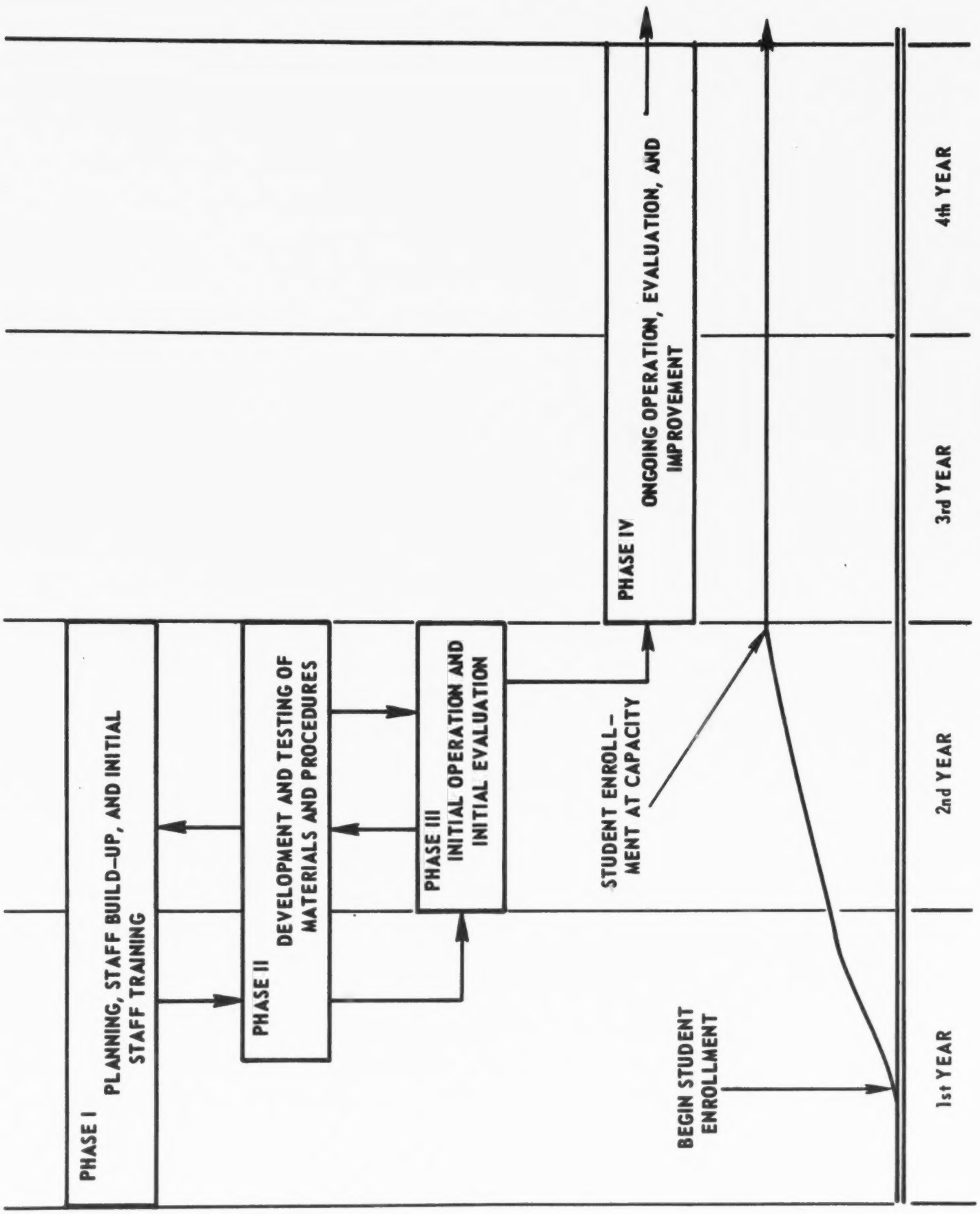

Figure 2. Phased Development Plan and Enrollment Schedule

V. MAKING IT HAPPEN

A. COMPLETE PROGRAM DEVELOPMENT IS THE MISSING FACTOR

There is a major national need for job-related ABE. The need is not now being met--but it could be. Enough knowledge and enough money are already available to make possible great strides forward. All that is missing is a well-focused continuing effort, effectively putting together techniques and features now scattered about in separate programs.

To make the same point another way, the highest priority for job-related ABE is for complete program development rather than for research alone or for dissemination alone or for the developmental improvement of isolated program parts or features. This is not to suggest that research and dissemination of knowledge are irrelevant, or that partial improvements have no value. All these are important, of course. But job-related ABE does not need to wait on further research before it can move ahead and achieve a substantial impact. And no amount of dissemination of research reports or "how to do it" manuals can substitute for actual, concrete, ongoing developmental efforts focussed on complete programs. Given an emphasis on complete program development, then research and dissemination and component development can take on new importance by being linked significantly to educational and social realities. Without this linkage, they remain ineffective.

B. METHODS OF DEVELOPING A SINGLE PROGRAM

To develop any type of comprehensive program, the basic requirement is for commitment of either people or resources. Complete programs don't happen by accident. But if money alone is available for a well-defined purpose, people can be found to carry it out. And if the right people are available, they can often find the money.

This suggests two methods for developing a single complete job-related ABE program--allocation for the purpose from within available resources, and voluntary consolidation of small efforts. The first method requires a commitment for a job-related ABE program of funds realistically adequate to meeting a locally identifiable need. Minimum amounts implied by the illustrative cost exercise in Chapter IV above would be $100,000 for the first year, $250,000 for the second, and $400,000 for each year after the second.

The second method requires that small and fragmentary programs unite under strong leadership to pool the resources they have, and to acquire additional resources if the consolidation still doesn't bring them up to a size large enough to support a comprehensive program. Possible sources of additional funds are numerous, but they are difficult to tap. They include government, schools and colleges, community organizations, employers, and unions.

For both of these developmental methods, there are dangers that program integrity may be compromised. The gaps in the real world between hopes and intentions and results are only too well known. The guidelines in Chapter II above can be used to help guard against some of these dangers. Each job-related ABE program should be based on an explicit written adaptation of the guidelines to its own needs, and it should be responsible to a designated review authority for regularly demonstrating both adherence to its own version of the guidelines and progress toward its own goals.

C. METHODS OF LARGE-SCALE PROGRAM SUPPORT

If funds on a large enough scale are available, or if enough small programs can combine their forces, a great many job-related ABE programs could be brought into existence, and they could cooperate with each other to make possible some highly desirable activities (such as research, publication, and personnel exchange) not practical for most single programs. However,

the relationships involved should not be those characteristic of a monolithic ABE super-program, tightly directed from a central location. Such a super-program would be both politically infeasible and contrary to the decentralized management style of our guidelines. Instead, ways should be sought for developing and maintaining a family of related programs, each exhibiting strong individual differences from the others. A minimum requirement for each would include orientation toward decent employment, to adult needs and characteristics, and to a developmental methodology.

A difficult problem for the sponsors of a family of programs is supervision of individual programs to ensure adherence to desired standards. This requires more than uniform reporting at quarterly intervals, supplemented by occasional on-site inspections. Uniform reports very often fail to deal with intangible but essential information; and occasional visits, though they can be highly informative to the visitor, can do little in themselves to influence ongoing program development and operation.

New methods of influencing local program thinking and operation need to be devised. Generally, these can be of two sorts--contractual and personal. Contractual devices should include written local adaptations of program guidelines. Particularly important, contractually, will be clear statements of local program goals and priorities, framed in such a way that accomplishment can be reasonably verified through observations and reports, and containing tentative numbers (of students, staff, dollars, job placements, annual post-program incomes, etc.) and time schedules. The numbers and times are to be tentative (as they would not be in many other types of contracts), in consonance with commitment to a developmental methodology. Quantitative statements of goals are desirable in order to focus attention on high priority program purposes, and such statements should be measured against these goal statements, but discrepancies are always to be expected and should not ordinarily cause alarm or discouragement. Most discrepancies, however, should give rise

to some degree of program redirection--changes in goals, schedules, methods, or some combination. Repeated or gross failure to reach tentative goals is of course a sign either of poor management or of an unmanageable situation, probably requiring drastic program alteration.

Personal methods of influencing local programs include staff training, staff rotation, interactive evaluation, and technical assistance. Publication of accounts of local program problem-solving efforts and of their results, along with dissemination of applicable research findings, can be a useful adjunct. Publication should not, however, usurp any large share of overall program funds. Staff training, like student education, should emphasize active and concrete learning and de-emphasize passive and symbolic methods.

Built into the schedule of each local program should be sufficient time and effort to accomplish staff training before the program itself begins. Otherwise, the program will almost inevitably get off to a faltering start (since started by untrained people), and from that point forward it will become increasingly difficult either to redirect the program or to bring staff training up to a reasonable level. The main effort should not be on teacher training but on the training of program managers, developers, and evaluators. These are the people whose lack of understanding, skill, and commitment with respect to program goals and methods can make the most difference.

Staff training methods should include as many opportunities as possible for observation of and interaction with experienced people, preferably in the context of an already operating program. It would be highly desirable for the staff members of each newly initiated program to work temporarily in an established program. In addition, "installation teams" should participate in the initial planning and internal training efforts of each local program. These are groups available to travel from one beginning program to another to assist with start-up problems. Each team could be assembled by choosing one member from each of several (say two to four) programs which have already

been under way for at least a year. Membership would change from time to time, on a staggered basis; and when members returned to their own programs, they would often bring back new insights and proposals for improvement. Similar groups should be formed for specialized technical assistance to fully operating programs.

Interactive evaluation can be a very effective way of influencing adherence to program standards. At regular intervals, each local program should evaluate itself and then be visited by a team composed of representatives of other programs. The visiting team assesses the apparent accuracy and completeness of the locally prepared self-evaluation.

The ultimate leverage behind the type of decentralized supervision just outlined lies in the fund allocation process. Initial funding of each program should be contingent on reasonable expectation that overall program standards can be met, and continued funding should be contingent on reasonable and cost-effective progress toward local program goals. At the same time, the disruptive effect caused by funding uncertainty must be recognized. A strategy for approaching this situation is to relate funding to the four developmental phases illustrated in Figure 2 above. Each successive phase of the four requires increased funds, and each should be based on increasingly demonstrable probability of success. Each phase of an individual program, therefore, provides a basis for funding decisions for its next phase.

Similar phasing and growth can be applied to large-scale support. A beginning should be made with a few programs, and gradual increases in funding should keep pace with (1) demonstrable progress of existing programs, (2) increasing availability of experienced staff members to serve on installation and evaluation teams, (3) increasing availability of local programs to serve as on-job training locations for the staff of newly initiated programs elsewhere, and (4) current information on locations with highest priority needs for job-related ABE programs.

As one method of selecting programs for support, organizations should be invited to bid competitively to conduct job-related ABE programs. Funds would be announced as available for first-year support of several programs, with the expectation that the number of programs supported will be increased over the years and that successfully started programs will receive continuing support. Any responsible organizational entity would be permitted to compete, including school districts, junior colleges, unions, employer associations, private educational firms, and community organizations. They could propose either to modify an ongoing ABE program under their control or to start a new one from scratch. Each bidder would specify local adaptations to the guidelines of this report, would propose detailed schedules and financial plans, and would describe and defend its capability to develop, evaluate, and improve the proposed program.

Awards would not necessarily be made only to the best or to the lowest cost proposals, but to a selection which could be expected to represent a diversity of sponsors and of target populations, and which could fit within total budgets available. Some initial awards should be made for strengthening ongoing programs that are already funded and that can be expected to continue. In such cases, only developmental (not operating) funds would be required.

Any plan for developing a number of job-related ABE programs should include provision for their cooperation with each other for personnel exchange and for interactive evaluation, as outlined above. Provision should also be made for common support to a research and dissemination organization, so that research genuinely important to operating programs can be carried out and realistically tested, and so that evaluations and analyses of program operations and consequences can be readily disseminated. Such an organization could also arrange staff training workshops and problem-solving conferences. For each of its activities, it will be required to estimate costs and consequences, to propose operational procedures for deciding whether desired results were obtained, and to modify its planned future activities on the basis of evaluated experience.

D. IN CONCLUSION

We have identified a number of improvements to existing job-related adult education programs that can be made with present knowledge and present funding. We have proposed a set of guidelines to assure that present and future programs contain all the components and perform all the functions essential to an effective effort to meet their differing local needs. We have offered a phased development schedule for a single program and discussed its cost implications. We have suggested construction of a network of cooperating individual programs integrated with research, development, and information dissemination.

We recommend that the agencies, institutions and organizations with responsibility for, or some other interest in, job-related adult basic education in the United States join in a cooperative effort to bring about these needed and quite feasible improvements, and to move significantly toward helping all educationally disadvantaged adults improve their chances for decent employment.

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VOLUME II

APPROACH AND DETAILED FINDINGS

SYSTEM DEVELOPMENT CORPORATION

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JOB-RELATED ADULT BASIC EDUCATION

Volume II
Approach and Detailed Findings

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PREFACE TO VOLUME TWO

This report is in two volumes--a comparatively short and self-contained "action summary", and a larger, more detailed backup volume. Their titles are:

Volume I. Summary and Recommendations

Volume II. Approach and Detailed Findings

Volume I can be read by itself as a short account of the entire project and of its recommendations. Volume II is supplementary and should be read only in conjunction with Volume I. Information regarding the availability of copies may be obtained from:

Miss E. Hopkins, Evaluation Division
Office of Planning, Research, and Evaluation
Office of Economic Opportunity
Washington, D. C. 20506

Volume II is organized as follows:

- Chapter I is a review of the approach adopted and carried out in performing the project.

- Chapters II - X present our findings. This portion of the volume is organized under nine topical headings.

- Chapter XI addresses critical issues arising out of consideration of our findings, literature search, and discussions with various authorities.

- Chapter XII is concerned with supplementary topics, particularly funding sources, research, and dissemination.

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I. BACKGROUND AND APPROACH

In this chapter we offer a discussion of:

- The rationale for the study;
- Data collection methods, as originally planned and as later modified, with reasons for the changes;
- Analytic methods, as planned and as carried out;
- Investigation methods actually followed in field visits to operational ABE programs.

A. UNMET NEEDS FOR ADULT BASIC EDUCATION

With only minor changes, here is the statement from the Office of Economic Opportunity's Request for Proposal (RFP) laying out the terrain to be explored:

> National statistics indicate a clear deficiency in the level of adult literacy in the United States. For example, it is estimated that:
>
> 1. Half of the unemployed youth between 16-21 years old read, write and compute below the fourth-grade level.
> 2. There are eight million poor adults, ages 16-24, who are severely educationally disadvantaged. Of these, some 4.3 million are family heads responsible for the care, inspiration and motivation of some 12 million children.
> 3. There are some 2 million poor undereducated wives and mothers, plus 1.7 million poor undereducated unrelated persons living in families with male heads.
> 4. From 14-20 million people are neglected educationally and fall into low literacy or illiteracy categories.

> This diffuse but vast problem has not been neglected. A variety of federal programs attack the problem of adult literacy in a variety of ways.

The RFP goes on to describe a number of these programs, and then defines the basic purpose of the present project in these words:

> Few, if any, of these efforts, however, have been based upon any fundamental research into adult learning processes. Few, if any, offer an array of diagnostic instruments capable of revealing the wide range of possible psychological and physiological malfunctions that make the adult disadvantaged population so difficult to teach. Review of the literature and a look at the federal expenditures in adult remedial education reveal little attention to improved forms of adult basic education or adult educational theory.
>
> Thus, programs to date have been operational programs which are generally adaptations of existing curricula developed for children and adolescents.
>
> Unfortunately, comparative information on the different existing adult basic education strategies is virtually non-existent. The program designer, faced with developing new strategies, cannot even readily identify the structure of existing program models. In order to take advantage, to the degree possible, of the accumulated experience in adult basic education, it becomes necessary to attempt a large scale retrieval of available documentation on program design and effectiveness.

B. GOALS, SCOPE AND OVERALL APPROACH OF THE PRESENT PROJECT

The problem statement cited above led to the present study of Adult Basic Education in relation to jobs--getting them, keeping them or improving them. The goals and the scope of the project thus encompassed not just methods of basic education but also effects on employability.

1. Goals. The purpose of the project was the "collection and analysis of information relating to...existing Adult Basic Education programs which can be used in an on-the-job setting." This purpose was taken to be practical; that is, we have been concerned with identifying workable programs whose

costs do or could relate reasonably to their educational effectiveness. Furthermore, since programs in adult basic education should also have the very practical goals of increased opportunities for employment and for the achievement of individual and social values, we kept constantly in mind that information collection, theoretical analysis, evaluation of educational techniques, recommendations for curriculum development, and all other such matters should be clearly pertinent to these educational and social purposes.

2. Scope.

a. Meaning of "Adult Basic Education". The general meaning of the term "adult basic education" is fairly well agreed upon as including and emphasizing elementary reading, writing, and arithmetic for adults (16 and over) who for one reason or another are severely dificient in these skills. In the Adult Education Act of 1966, for example, adult basic education is defined as:

> Education for adults whose inability to speak, read, or write the English language constitutes a substantial impairment of their ability to get or retain employment commensurate with their real ability, which is designed to help eliminate such inability and raise the level of education of such individuals with a view to making them less likely to become dependent on others, to improving their ability to benefit from occupational training and otherwise increasing their opportunities for more productive and profitable employment, and to making them better able to meet their adult responsibilities.

Within a broad definition of this sort, there are many variations of purpose, content, method, focus, and context. In the present project, we chose not to define adult basic education narrowly. We concentrated on elementary reading, writing, and arithmetic for adults, and emphasized programs which are, or can be, used in an on-the-job setting.

b. Examples. Many types of adult basic education programs currently exist in the United States. Most of these fall into one of two general categories: (1) those operated by the federal government, often in conjunction with private profit-making or not-for-profit organizations and educational institutions; and (2) those operated by agencies or institutions other than the federal government.

Federally-sponsored adult basic education programs include those administered by the U.S. Armed Forces, Department of Labor (as incorporated in Job Corps, Concentrated Employment Program, and Manpower Development and Training Act programs), Department of Health, Education and Welfare (and particularly by the U.S. Office of Education), Office of Economic Opportunity, Department of the Interior, and the Department of Justice.

Adult basic education is also supported outside of the federal government by a great variety of sponsors, such as state prisons, public and private institutions of higher learning, labor unions, voluntary associations, religious organizations, and large corporate employers.

There are a number of profit-making and not-for-profit companies experienced in implementing adult basic education training in the United States, including such companies as the Board for Fundamental Education, MIND Inc., Westinghouse Learning Corp., Educational Development Laboratories, General Learning Corp., and a number of publishing houses including McGraw-Hill, Addison-Wesley, Steck-Vaughn and Grolier. These firms generally enter adult basic education (1) as subcontractors to government-sponsored enterprises such as the Concentrated Employment Program, (2) as paid instructors for large corporations with adult basic education programs, (3) as consultants for cities and counties, or (4) in cooperative efforts involving the federal government, schools, colleges, private companies, or states.

Foundations, associations, and other institutions as well as individuals are also involved directly or indirectly in ABE, including the Armour, Ford and Rockefeller Foundations; such organizations as the National Education Association and its components, National Society for Programmed Instruction, American Iron and Steel Institute; libraries and clearinghouses for ABE materials; state directors of adult education; and university professors and other individuals known to be active in the field.

During the course of our study, we made contact with nearly two hundred people from these various communities who assisted us in our search for information on programs, their origins, their particulars and their effects. What these contacts revealed very quickly was that the present state of the theory and practice of adult basic education leaves much to be desired. Few actual programs are well developed, theoretical foundations are contadictory and of little help, and useful information bearing on program effectiveness is in short supply.

We chose to adopt a broad definition of "Adult Basic Education", as indicated above. We encountered equally broad notions of what constitutes an "on-the-job" setting and what is "job-related". As one might expect, people close to ABE programs tend to adapt their definitions to their circumstances and our project staff did not escape this process of adaptation. "Job-related" to some of our respondents means getting the conventional door opener of the high school diploma or its equivalent; to others it means passing an apprenticeship or a civil service examination or learning to match a six-digit number on a tag attached to a suitcase; to still others, it means reading signs such as "Danger, High Voltage" or "Por Favor, no Escupen en la Fuenta". "On-the-job setting" may mean a union hall or some other training location away from work, or a quiet, air-conditioned classroom just inside the plant's fence.

3. Overall Approach. In planning and conducting our study, we assumed that a complete analysis of a job-related adult basic education program would include attention to:

- Program Generators - Community needs and circumstances, community resources and constraints, and an implied or explicit theoretical basis that, taken together, made a program necessary, desirable and possible.

- Program Characteristics - including: outreach, intake and motivation; student assessment, counseling and placement; educational content (curriculum); format, schedule and facilities; student roles; staff roles and requirements; media, equipment and materials; methods and learning approaches; logistics, administration and management; and relationships outside the program.

- Program Consequences - Effectiveness for participants, effectiveness for employers, other social and economic benefits, and direct and indirect social and economic costs.

Our position was that the identification of one or more major "models" of ABE programs that might later be classified in some schema would require that we locate and investigate first-hand a representative sample of programs in which the above three areas were clearly and integrally present.

Pursuing this approach, we compiled a checklist of "indicators" and "contra-indicators" that would assist project personnel in determining whether or not a particular program qualified for inclusion in our sample of programs to be studied in greater depth. The idea was that, to qualify, a program should be characterized by all or most of the indicators; conversely, a program characterized by two or more contra-indicators would be an unlikely candidate. Figure 1 is a copy of the checklist we used.

Initial project goals are to:

- Identify existing major ABE models which can be used in an on-the-job setting.
- Collect (or locate) documentation on design and effectiveness of these models.
- Obtain funding information.
- Include all significant types of major models.

By "major model" we mean one which has all or most of these characteristics or indicators:

I-1. An explicit theoretical basis of some scope.

I-2. Continued and focussed development over several years.

I-3. Available data on design and effectiveness.

I-4. Explicit program management, matching goals against results and instituting needed improvements.

I-5. Comprehensive concern with all needed program components (staff training, outreach, instruction, placement, facilities, materials, community relations, etc., etc.).

I-6. Demonstrated viability in a realistic on-the-job setting.

By contrast, a program characterized by two or more of the following contra-indicators would be an extremely unlikely candidate for consideration as a major model:

C-1. Exclusively intended for an off-the-job setting.

C-2. Concentration on one or a few components only (e.g., materials alone or equipment and community relations alone).

C-3. Random variation of approach, materials, etc.

C-4. Existing as an eclectic jumble of unrelated components.

C-5. Existing on paper only, or in the earliest stages of operation.

Figure 1. Indicators of Project Focus

C. METHODS OF INVESTIGATION, AS PLANNED AND AS MODIFIED

Our initial data collection procedures included visiting representatives of the Office of Education, the Office of Economic Opportunity, the Department of Labor and other governmental agencies, to obtain information on federally funded programs. We also visited representatives of various major private sources of adult basic education projects, and obtained all available written documentation on program design and effectiveness.

This was essentially to be a "top-down" approach, based on the assumption that ABE material or program developers, producers, suppliers, implementers, sponsors and their associations should know, as a necessary input to their developmental, marketing and funding decisions, a great deal about programs and program features that either worked or did not, and why. However, we found that insufficient detailed information on particular programs was obtainable at central locations. We therefore embarked on a more roundabout search for the additional information we needed. Telephone calls were made to ABE authorities in a good many states and regions, asking them to recommend candidates for on-the-job ABE programs matching our list of indicators (see Figure 1). These phone calls, along with extensive telephone follow-ups, were performed by a group of consultants to our project at the University of Chicago, under the direction of Dr. William S. Griffith, Chairman of the University's Adult Education Committee.

As a result of these various approaches, we identified approximately 80 individual ABE programs of particular interest. In most cases, however, the program documentation we were able to obtain was far from comprehensive. Nevertheless, we took all information at hand, including telephone statements from local sources, and endeavored to classify programs into groups which might be considered as representing "models." Here again, we found that we needed to revise our original expectations. The programs we analyzed differed from each other in so many significant ways that we found no useful way to

structure the totality directly into a schema of types or models. We had expected to find empirically justifiable linkages among program variables in such a way that the variables would hang together in a comparatively small number of natural or organically stable types, but this proved not to be the case.

To avoid oversimplification, we then decided against trying to find or create a small set of models to represent the universe with which we were concerned. Instead, we constructed a schema of more or less independent program features. We thus deferred a concern with models until later in the project, when we would be able to select and organize features so as to constitute a model in the sense of an illustrative ideal program.

Given this shift in focus from "models" to "features", planning for the project's field activities proceeded as follows:

- For each program, special or emphasized program features were noted on a narrative entry type of form (Figure 2). This process was based on whatever information we had on individual programs, and concentrated on features which appeared noteworthy either because they were somewhat unusual or because they were emphasized by program documentation as being especially important.

- Features were grouped into a schema of types and sub-types (see Figure 3 below and accompanying text).

- All important variant features were noted for field visitation. Programs to be visited were selected so that each feature of interest was represented in at least two programs--more, if possible.

Program Name and Location: _____

Documents consulted: _____

1. Student characteristics.
2. Program goals.
3. Student recruiting and non-educational assistance.
4. Student assessment, counseling, and placement (in-program and post-program).
5. Program content (curriculum).
6. Incentives and motivation.
7. Instructional and learning methods; staff and student roles.
8. Staff characteristics and qualifications.
9. Materials, equipment, and facilities.
10. Setting, format, and schedule.
11. Staff recruitment, development, evaluation, and modification.
12. Curriculum, materials, and methods development, evaluation, and modification.
13. Administration, logistics, and reporting.
14. Community, employer, and institutional relationships.
15. Dissemination and transferability.
16. Funding methods.
17. Explicit theoretical basis.
18. Other.

Figure 2. Adult Basic Education Programs
Form S--Special or Emphasized Features

- For each program visit, investigation would center around the emphasized features which had been previously identified. Knowledgeable people would be sought out to provide information on how the program acquired these features, what their results had been (in both costs and educational effectiveness), how they related to other less-emphasized features, and what changes might be desirable for program improvement.

On the basis of information available, we identified thirty-three specific ABE programs from around the country as satisfying project criteria for possible on-site investigation. We were able to specify forty-seven discrete features of interest, and projects were selected and their relevance confirmed by additional telephone queries so that all features would be adequately represented. Examination of the array of features vs. programs (the filled-in version of Figure 3) led us to conclude that about eight programs should be investigated in depth, and that brief visits to perhaps eight more might be required to cover unusual features not widely represented in our sample. Programs exemplifying a comprehensive range of program features were candidates for more intensive ("Category One") visits; programs of lesser scope but containing special features of interest were candidates for shorter ("Category Two") visits.

An abstract representation of the schema used in the selection process is shown in Figure 3. In this figure, the column headings (1 through 33) identify the individual programs by name and location. The row headings (A1, A2, A3, through Q1) define the types and subtypes of features we wanted to explore in some depth. For example, "A" represents Student Characteristics, and A1, A2, and A3 are, respectively, non-English speaking, rural, and urban.

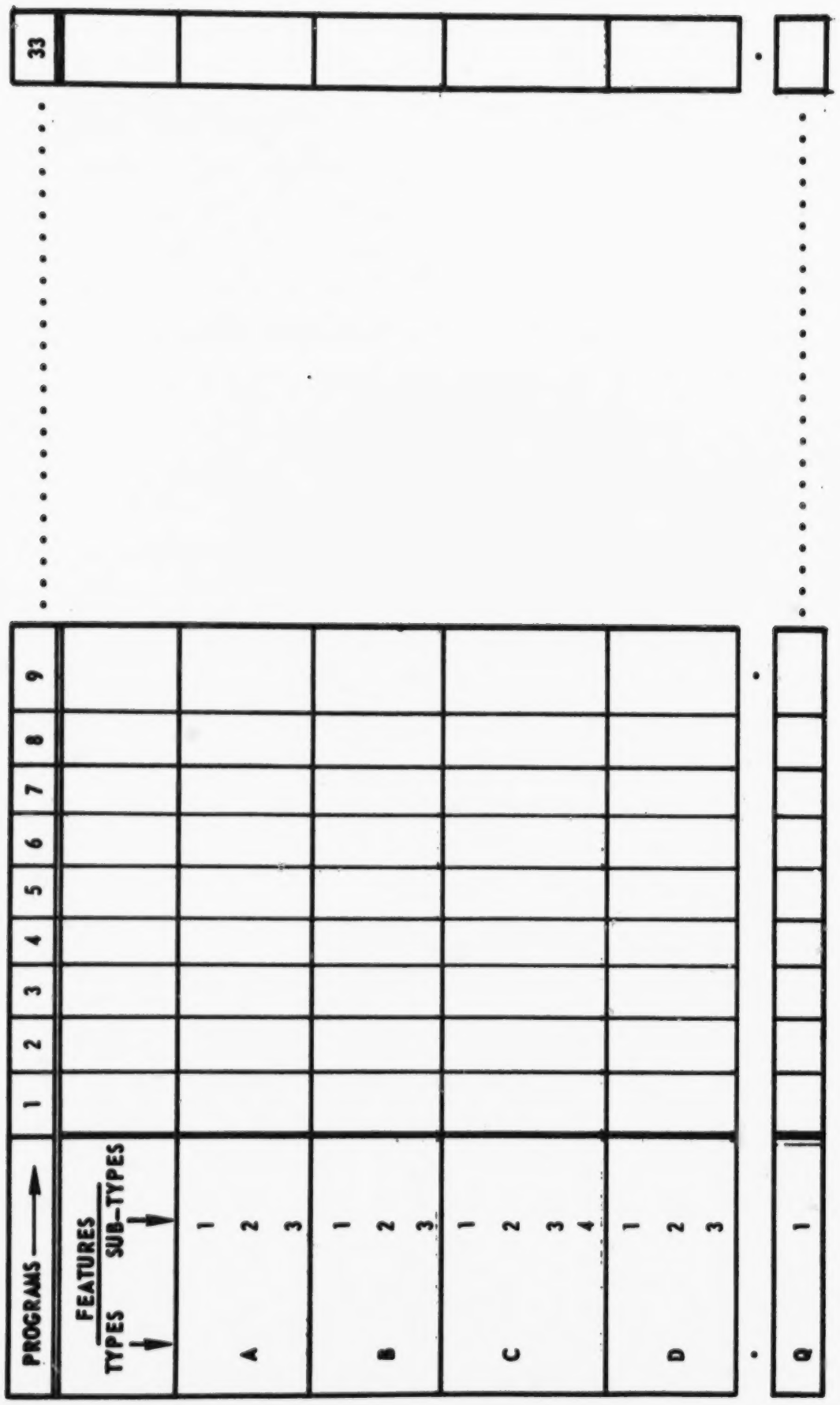

Figure 3. Programs and Features

The programs and features involved in this process were the following:

Program Identifiers

1. Arizona - Chandler Learning Center Program
2. Arkansas - University of Arkansas
3. California - Los Angeles City Schools
4. California - NARTRANS
5. District of Columbia - Demonstration Center (Project GO)
6. Connecticut - Olin Mathieson
7. Florida - Eastern Airlines
8. Illinois - Portland Cement Association
9. Illinois - Rauland Corporation
10. Illinois - Campbell Soup Company
11. Illinois - Carson, Pirie Scott
12. Kentucky - Morehead State College
13. Maryland - CORE (Baltimore)
14. Michigan - Chevrolet Motor Company
15. Mississippi - Futorian Furniture Company
16. Missouri - McDonnell-Douglas
17. New Jersey - Rutgers University
18. New Jersey - Blue Cross
19. New York - Industrial Education Center
20. New York - Skill Advancement, Inc. (New York City)
21. New York - BOLT, Inc. (New York City)
22. New York - New York Bell Telephone Company (New York City)
23. New York - Eastman Kodak Company (Rochester)
24. New York - American Institute of Banking (New York City)
25. North Carolina - Riegel Paper Company
26. Ohio - International Laborers' Union (Columbus)
27. Ohio - Republic Steel Corp. (Cleveland)
28. Ohio - General Electric Company, Lamp Division

29. Texas - Texas Instruments, Inc.
30. Washington - Atomic Energy Commission (Richland)
31. District of Columbia - American Federation of State, County, and Municipal Employees
32. Illinois - The Midwest Coop League
33. Tennessee - Oak Ridge Associated Universities (Project TAT)

Features and Subfeatures

A. Student Characteristics

1. Non-English Speaking
2. Rural
3. Urban

B. Program Goals

1. Employment
2. Job Upgrading
3. Academic (Certification)

C. Recruiting and Non-Instructional Services

1. Employer Recruits
2. School(s) Recruit
3. Released Time (Full or Part Payment)
4. Supportive Services

D. Assessment and Placement

1. Tests Used
2. Intuitive Assessment
3. Employment Counseling

E. Curriculum

1. Society-Related
2. Job-Related

F. Incentives

1. Career Ladder
2. Paid Trainee Status (Stipends)

G. Methods

1. Individualized (Programmed Instruction, Etc.)
2. Adult Atmosphere
3. Closed-Circuit Television
4. Varied

H. Staff Characteristics

1. Certified Teachers
2. Experienced Employees
3. Indigenous Community Representatives
4. Paraprofessionals

I. Materials and Equipment

1. Job-Related Materials
2. BFE, MIND Materials

J. Setting and Schedule

1. Industrial Setting
2. Off-Job Center for Adults
3. ABE Alternates with OJT

K. Staff Acquisition and Development

1. Provided by Local Schools
2. Provided by College or University

L. Program Development

1. Centralized Development
2. By Local Schools or Colleges

M. Administration

1. Regular Program Assessment

N. Relationships

1. Employer-Developed
2. Union-Developed or Promoted
3. Consortium of Employers
4. Grass-Roots Involvement

O. Dissemination

1. Marketed to Employers
2. Marketed to Union Locals

P. Funding

1. Employer Pays All Costs
2. Employer Shares Costs

Q. Theory

1. Business Venture to Provide Training and Employment

The 33 programs selected for inclusion in the schema outlined in Figure 3 are those remaining after a two-step elimination process that began with eighty-odd programs that our investigations suggested might be qualified under the eligibility criteria implicit in Figure 1. Preliminary efforts to verify the status of this initial set reduced it quickly to about 60 programs still operating in more or less the form their documentation suggested. The second step in the process reduced the list roughly by half when we sought to up-date by phone calls and correspondence the accessibility, operational circumstances, and other aspects of the programs that might make them likely candidates for field study.

Thus the 33 programs ultimately tested for what they might contribute to our project goals were a net sample of the "best" programs currently operating, as far as we could determine within the limits of available information.

D. FIELD INVESTIGATION METHODOLOGY

The ultimate choice of sites to be visited included 15 locations in two categories:

Category I - Programs that apparently offered a sufficiently broad and deep resource of useful information to justify thorough investigation, and

Category II - Programs with a feature or features that warranted examination in depth but with attention focussed on the features themselves rather than the programs as a whole.

Category I visits were concentrated; that is, they were either prolonged (up to five days) or staffed by more than one investigator. Category II visits were shorter; one staff member was assigned, and visits were limited to two days.

1. Site Visit Selection. Before arrangements were made to visit the 15 selected program sites, a telephone interview was undertaken to make certain that the intended visit would be welcome and that useful findings would result. Figure 4 shows the telephone interview guide that was used.

In some cases, findings from these interviews led to reclassification of a program from Category I to II or the reverse; in some others it produced documentation that had been hitherto unavailable or not known about. In one case, it led to elimination of a program altogether because our timing was out of step with program schedules, since delayed funding had caused a suspension of program operations. In no case was our request to visit refused.

2. On-Site Data Collection. In our visits, we followed the project's empirical methodology, being prepared to respond to existing programs as they actually existed. Figure 5 is a brief checklist used by each SDC staff member as a device for assuring that comparable and complete information would be obtained by different people from widely diverse sources. Interviews were kept open-ended to permit program operators, sponsors and clients to air their views, pro and con, about ABE in general, the federal government, the vagaries of funding, employers, the program itself and any other topic that did not cause the interview to stray too far from its purpose or become unduly prolonged.

To: Date:

Phone No: ( ) -

Intro: Who we are. Our purpose is to describe and analyze outstanding ABE program features for OEO and others. Your program recommended by:

You were previously called by:

We are now considering sending one or two people to visit you in October or November. Would you permit a visit, description, and analysis?

Can you give us additional information to help us decide when we should come, and how long we should plan to stay?

Do we need to talk on the phone to anyone else for this type of information?

We selected your program because of these features of interest:

Have any of those features changed?

Are there other features of particular significance?

Which people should we interview about program and feature:

Design?

Effectiveness?

Current operations? (Instruction , recruiting, testing, counseling, placement, staff selection and training, record keeping, management, etc.)

Costs?

We'd also like to interview students. How many current students are there? Any past students readily available?

We'd also like to watch the program in operation, and review any available records and files. How many places and times are needed to sample program activities?

How much time should be reserved for studying program records?

Figure 4. Site Screening Phone Call

Fundamental goals

- Why is the program designed as it is? That is, what are the reasons for the presence of present features and the absence of absent features?

- What is known about effectiveness and costs?

Background information desired

- Description of overall existing program--generators, characteristics, and consequences. (Category I--as detailed as possible; Category II--in brief.)

Specific information

- What are the chief features of the currently operating programs, regardless of our expectations? (Category I--concentrate on current chief features; Category II--concentrate on anticipated features of interest.)

- How do these features contribute to program goals? (Get hard data, if available.)

- What are the costs of these features?

- What difficulties or problems exist in connection with these features?

- What are the reasons for the differences (if any) between expected and actual features?

- What on-site plans and ideas exist for program improvements?

Figure 5. Site Visit Information Goals

3. Capsule Descriptions of Sites Selected. The following programs were scheduled for Category I visits:

Los Angeles City Schools--The public schools act as ABE subcontractor to recipients of Manpower Administration contracts. Classes are conducted on client company or union premises.

Skill Advancement, Inc. in New York City--This organization conducts ABE at employers' work sites. It is funded by an Office of Education demonstration grant, which pays all ABE costs.

The Midwest Coop League in several midwestern states--Various members of the Cooperative League of the USA have received MDTA funding support for providing ABE to employees. Training is operated out of Farmland Schools Division of Farmland Industries in Omaha, Nebraska.

University of Arkansas--The university initiates and operates rural programs throughout the state using an Office of Education demonstration grant. A mixture of job-related and non-job-related programs is offered.

International Laborers' Union Local 423 in Columbus, Ohio--The union and the Columbus Board of Education joined Leo Kramer, Inc. in soliciting an Office of Education demonstration grant to develop job-related ABE materials and to institutionalize an ABE program in the Laborers' Union. ABE is conducted in the union hall.

NARTRANS in Los Angeles--North American Rockwell formed a subsidiary company to hire disadvantaged individuals. The subsidiary operates ABE in-plant for its workers as a provision of a training contract with the Manpower Administration.

The following programs were scheduled for Category II visits:

Republic Steel Corp. in Cleveland, Ohio--Republic Steel's wholly-owned subsidiary training company conducts ABE at an off-the-job training facility. Its program is funded with a Manpower Administration contract.

BOLT, Inc. in New York City--This organization is affiliated with the Puerto Rican Forum but received all of its funds from a Department of Labor demonstration grant. ABE is conducted for Spanish-speaking individuals at their place of work.

Project Go in Washington, D.C.--The D.C. Demonstration Center sends ABE teachers from its staff at no cost to client agencies. Presently, the Department of the Navy and the Opportunities Industrialization Center in D.C. use Project Go teachers. Funds are provided by an Office of Education demonstration grant.

Bell Telephone Co. in New York City--This program offers ABE for telephone operators and maintenance workers. The program was funded by the company until this year, and is presently funded with a contract from the Manpower Administration. ABE is conducted on company premises.

Atomic Energy Commission in Richland, Washington--The Hanford Plant is a federal facility operated by the Atomic Energy Commission. A number of contractors, including ITT Federal Support Services and Atlantic Richfield, cooperate to provide ABE for disadvantaged workers. The program is funded by these companies.

Oak Ridge Associated Universities, Tennessee--ABE is provided within a technical training and placement program sponsored by the AEC, Union Carbide, a federation of state higher education institutions, and state departments of vocational training and education.

Riegel Paper Company in Riegelville, N.C.--ABE is at the plant in a classroom which may be attended by employees during off-duty hours. Materials developed by the North Carolina state community colleges are used.

Eastman Kodak Co. in Rochester, N.Y.--This company provides ABE as a part of its training program for interested employees. It initiated and funds the program, which is conducted on company premises. One aspect of the program is subcontracted to an independent educational organization, the Board for Fundamental Education.

Rutgers University in New Jersey--The University has a Department of Labor contract to work with unions and employers in order to guide workers into a variety of locally provided ABE programs.

II. GOALS OF JOB-RELATED ABE PROGRAMS

Six important goals were identified using information on the ABE projects visited and related data on other programs. Each of the programs was intended to do one or more of the following:

For the Trainee

- Increase self-confidence
- Maximize awareness of employment alternatives
- Upgrade trainees into better jobs
- Prepare for an examination
- Improve consumer and life skills

For the Employer

- Improve company work-force efficiency and stability
- Fulfill felt obligations to workers or community

Trainees in a particular ABE program may differ significantly in what they hope to achieve or gain through participation. However, each program's primary objectives, which are intended to encompass all trainees, correspond to some combination of the goals above.

Most programs seem implicitly to acknowledge the importance of instilling self-confidence in their trainees as a means to other ends. For example, in Cleveland, Republic Steel's ABE program emphasizes building the trainee's confidence as a means of improving company work-force efficiency and stability. In New York City, the Skill Advancement, Inc. staff cultivate the enrollees' self-confidence while making them aware of employment alternatives.

There are several points to note in connection with programs in which bolstering enrollee self-assurance is a goal. For instance, at Republic Steel's off-the-job training facility, the trainee is encouraged to "brush up" his present

reading and computation skills to make him aware that he possesses some assets that will help him in the world of work. Administrators of this program contend that once the trainee's self-assurance has been increased by brushing up his present math and reading skills and by allowing him an opportunity to express ideas in class discussions related to social science, group dynamics, history, and so on, he will be much better prepared to work efficiently enough at his new job to be retained.

It may be that the emphasis on "brushing up" the trainee's skills is a way of alleviating the trainee's feelings of fa ure and inadequacy. It is well-known that overcoming these negative feeli is a major hurdle that must be made in recruiting non-self-selected, functionally illiterate persons into ABE programs. However, attendance figures in the Republic Steel program are not appropriate for making inferences supporting or refuting the effectiveness of this approach to recruiting, since attendance in their ABE program is a mandatory prerequisite for continuing in their employment program funded by the Manpower Administration.

With regard to "brushing up" present skills, it is reasonable to question whether self-confidence might not also be strengthened by teaching trainees computations or reading that they had previously believed to be beyond their ability. The Los Angeles Schools ABE project found this to be a fruitful approach. Their students were pleasantly surprised to learn they could do calculations that had seemed very difficult to them. This was done by breaking problems down into their components and presenting them sequentially to the trainees for solution. Taken as a whole, these sequential solutions became successful feats of complex arithmetic.

There are two general approaches that may be used in achieving goals by strengthening trainee assurance. In the first approach, the trainee's self-confidence is strengthened through mastery of job-related mental or manual

skills. In the second, his assurance is strengthened as he improves an undeveloped skill not directly related to the mental or manual skills which will be needed on the job. In the first approach a trainee might be given relatively narrow training in math or instrument reading that will be needed on the job. By mastering these skills he becomes both self-confident and able to perform necessary tasks. In the second, mastering or learning the substantive is less important than acquiring or realizing the abstraction, self-confidence.

Republic Steel seems to be attempting to increase self-confidence using the second approach, rather than the first. Improving job-related mathematics and reading is not emphasized. Self-confidence is nurtured by allowing the trainee an opportunity to express his opinions and to be heard in class discussions. At the same time, attitudes conforming to company standards are cultivated.

Maximizing trainees' awareness of employment alternatives is a goal of some programs. This goal is predicated on an appreciation of the large number of poor people who are underemployed. Their exit from poverty is limited most immediately by their preceptions of the world and existing opportunity structures. Therefore, increasing the number of ABE programs attempting to broaden trainee perspectives should probably decrease the number of people underemployed.

Skill Advancement, Inc. (SAI) in New York is an example of an ABE program that integrates into its curriculum information on job possibilities and careers that trainees can enter if they are unsatisfied with their present employment. Since most SAI trainees are Spanish-speaking, it is reasonable to expect they may be less able to discover alternatives than English-speaking, disadvantaged workers. This characteristic of the trainee population seems to have been an important reason for the program's emphasis on revealing employment alternatives. Another reason is that the administrators and staff have keen insights into the problems facing the working poor.

Administrators of other adult basic education programs have indicated that the ABE they offer is not linked with promotion opportunities or a career ladder and that their primary goal is to prepare the worker to do his job more efficiently. This training is often offered to low-entry-level workers as a means of reducing the turn-over rate in these jobs. Diminishing company costs due to work-force instability and inefficiency is ultimately the reason for this type of adult basic education.

Although it is obvious that this objective is company-oriented, while maximizing trainee awareness of employment alternatives is individual, or trainee-oriented, it does not follow that either of the objectives will be consistently more beneficial to all trainees. The employment situation of the enrollee is an important intervening variable that must be taken into consideration in any attempt to compute the benefits that are liable to accrue to him as a result of implementing various program goals. Clearly, the individual-oriented goal of discerning employment alternatives is not ordinarily relevant to the individual unless he is dissatisfied with his present employment or unemployment. For example, it is reasonable to believe that a well-paid steel worker, even without promotion possibilities, could still be satisfied with his job because of the good pay and/or security it provides.

Data gathered during field observations indicate there are ABE programs which have as a primary goal the upgrading of employees. There are different kinds of upgrading. The most common kind consists either of moving employees up a job ladder with rungs spaced at frequent intervals or promoting employees along a relatively flat or horizontal job ladder from entry-level jobs with high turn-over into permanent jobs. Another form which differs from either of these involves protecting presently employed workers from displacement by improving or altering their skills. This may be viewed as a form of employment insurance.

Upgrading employees is an objective that is related to and bound up in some way with all of the previously discussed goals of adult basic education. As a matter of national policy, the implementation of ABE programs within companies for upgrading needy employees should probably be a top priority. However, few programs embodying this principle were encountered in our visits. Of the 15 programs visited, only six featured upgrading of employees within an opportunity structure.

In Benton, Arkansas, workers at the Curtis-Mathes plant (University of Arkansas project) were assisted in attaining a somewhat better paying job by receiving arithmetic training. The workers here operate wood cutting and shaping machinery which must be set for cutting various sizes of wood pieces. Because they lack the necessary rudimentary skills, most of the machine operators must have the cutting guides on their machines set for them by others. The employees able both to set the guides and to operate the machine are better paid. No career ladder is involved, but a better hourly wage is within the grasp of employees who master the arithmetic skills needed for setting the guides.

Riegel Paper Company in North Carolina has an in-house test which is a prerequisite for employees being upgraded into in-house job opportunities. As of the time of the on-site visit, no one, who had taken and failed the test, had taken advantage of the ABE course and moved into a different job. Men with a great deal of seniority in present jobs are reluctant to surrender the advantages they have accrued for those in the more skilled job, and therefore they see no need for ABE.

The union laborers in Columbus might become stewards or foremen by receiving training in reading and math related to their work. There is no structured program within the union to assure that this kind of training does result in promotion to steward or foreman rank, but these skills are an asset that would place the worker in contention for these jobs. One of the trainees

interviewed in the learning laboratory in Columbus is presently a foreman. He foresaw that unless he learned to read written instructions and to compute the amount of cement and other materials needed for a particular piece of work, his position as foreman would be in jeopardy. Presently, management conveys work instructions and material specifications to foremen orally, but there is a growing trend to give these daily instructions in writing without material specifications already computed.

At the Eastman Kodak Company, a relatively steep, broad opportunity structure exists for those who equip themselves for upgrading through ABE or other, more advanced training courses, and the personnel director of the Leisure Group Corp. in Pine Bluff, Arkansas (University of Arkansas Project) noted that several of their ABE participants had been promoted to supervisory jobs within the company. The AEC plant in Richland, Washington, also offers upgrading via ABE training.

None of the other nine programs visited offer a specific upgrading arrangement. This is true even though they may include "upgrading" in their written list of program objectives.

Preparation for an examination is a primary objective of some adult basic education projects. The examinations vary from those required for union membership to those used to certify an 8th grade equivalency. Tests for union membership often are not related, in terms of material covered, to a specific union job, but since the test is required for union membership, it is of utilitarian value for a particular job or group of jobs and, therefore, falls within the definition of job-related ABE. However, an 8th grade equivalency certificate is of little utility in securing a good job; it therefore falls outside the definition of job-related ABE.

Skill Advancement, Inc. in New York assists trainees in passing the New York City 8th grade equivalency tests. Administrators of the program could not,

or did not, offer adequate explanations of the value of these certificates for employees in terms of employment opportunities. The 8th grade equivalency certificate was not the primary target of this program, otherwise its goals would have been of questionable relevance for the purpose of the present study.

Finally, there are programs which are primarily meant to improve consumer and life skills. An apparent example of this type of project is located in Pine Bluff, Arkansas in the Leisure Group, Inc. plant (University of Arkansas Project). Here the ABE program is offered mainly as a way of doing something to help the employees in their off-work endeavors, such as bill paying and shopping. A benevolent paternalism prompted the initiation of this project, more than a concern for company efficiency or employee upgrading, as far as could be discerned from discussions with the personnel official in charge. However, as was mentioned above, he also indicated that a few of their ABE graduates had successfully applied for promotion to supervisory jobs within the company.

The stated aim of this ABE project seems to be non-job-related and similar to the goal of most ABE programs found in public school systems. This observation illustrates a weakness in defining as job-related any ABE project conducted on company facilities. It is perhaps possible to have a non-job related ABE program on a work site, if the crucial criterion of a program's job-relatedness is its emphasis on securing employment, improving worker performance, or securing better employment.

CONCLUSIONS

The information gathered from field research indicates that each of the ABE programs for which we have complete data has one or more of the objectives discussed in this section: Increasing trainee self-confidence, Maximizing enrollee awareness of employment alternatives, Improving work-force efficiency, Upgrading trainees into better jobs, Preparing enrollees for tests, and

Improving trainee's consumer and life skills. All of the projects except those solely involved with improving consumer and life skills and preparing trainees for general certification tests fall within the scope of job-related ABE.

A touchstone for determining the job-relatedness of a project's goals developed out of the discussion presented in this section. The crucial criterion is whether the ABE programs emphasizes securing employment for trainees who are employed part-time, improving worker performance, or securing better employment for those dissatisfied with their present jobs.

A. SCHOOLS

In the projects which are run solely or in part by schools, the role played by the schools varies significantly. In Arkansas, the University is the official recipient of an Office of Education demonstration grant for adult basic education. The University has the responsibility for running approximately 13 ABE programs located throughout the state in rural settings. In this case the school involved in ABE is responsible for all aspects of the programs, except curriculum development (off-the-shelf software is used).

Rutgers University is the recipient of an OE demonstration grant in New Jersey, but rather than being responsible for operating ABE projects it serves as a channeling agency. It works with unions in New Jersey plants to place trainees in ABE programs operated by various organizations and boards of education.

In the District of Columbia, the local Board of Education operates the Demonstration Center for adults with an OE demonstration grant. One component of the Demonstration Center's overall program, Project GO, is designed to provide services to client agencies in need of assistance in setting up or operating ABE programs. (Client agencies are private companies or federal departments and agencies who have employees who would benefit from ABE.) The assistance provided through Project GO is in the form of teachers from the Demonstration Center staff loaned to the client agencies. The teachers either teach at a client agency program for an extended period, or offer consultation to a client agency initiating an ABE program. In this arrangement, the Demonstration Center serves as a central supplier of teachers, rather than materials, and the Opportunities Industrialization Center (OIC) in D.C. is presently the primary recipient.

In Los Angeles, the Board of Education acts as a subcontractor providing ABE for recipients of Manpower Administration and MDTA contracts. In this capacity it is responsible for all aspects of adult basic education.

III. PROGRAM ORGANIZATION

Generally speaking, the most striking characteristic of job-related ABE projects is their organizational diversity and complexity. A wide variety of organizational types is represented in the sample selected for site visits. They range in complexity from the Training and Technology project in Oak Ridge, Tennessee--a combination of organized labor, federal government agencies, higher education institutions, and state departments of Vocational Training and of Employment Security--to a manufacturing company running an ABE program for its own employees with minimum outside funding. Each of the programs is composed of one or more of six organizational entities:

- Schools--(private schools or colleges, state-funded higher education. and local education agencies)

- Employers--(single companies or combinations of employers, including co-operatives)

- Unions

- Government--(local, state and federal)

- Community improvement organizations

- Educational consulting and training companies

The discussions presented in the following subsections deal with those organizations which individually, or in combination with some other organization, operate existing ABE programs. This section does not focus on who funds the projects, but rather on who operates them. Questions having to do with sponsorship or source of funding are discussed in the section below on Funding.

The data collected from field visits, consultants, phone calls and written information provide a basis for making observations on the advantages and disadvantages which are related to various organizational arrangements involving schools. Judging from one example that may be used as an illustration of the consequences of having a school of higher learning conducting an ABE program, it appears that the relationship between the school and the program's administration can become extremely informal and intermittent. In actuality the school may provide little more than office space in one of its buildings for the administrators of the ABE program who are hired from outside the school to run the government-funded project. The school may become uninterested in the objectives or focus of the program once it has received the necessary funding and may tend to maintain very loose ties with its outlying ABE projects, so that the total operation may lack direction.

This is not to suggest that schools of higher education operating ABE programs invariably conform to this pattern. Two intervening factors seem important in the example above. First, this school does not fund ABE programs directly with its own money or with any hope of long-term continuance. When short-term federal government funds are being used, it is liable to cause the universities' interests in the project to wane after the initial task of funding has been successfully completed, especially if the project administrators are not faculty members but men hired from administrative positions in elementary and high school systems. This second factor is extremely important. The school's reputation is not at stake as directly as it would be if its own departments and faculty were involved. To summarize, government funds form a labyrinth at large universities. When they are used to pay outside personnel on a short-term basis, the chain of command between the school and program leaders tends to be informal, and university interest may lag.

On the other hand, advantages may accrue to ABE programs operated by a combination of schools of higher learning and other organizational entities. In North Carolina, an organization of state-operated community colleges

develops curricula and consults with employers who wish to initiate projects. Regular college personnel are used, not outsiders working on a contractual basis in the school's name, and the state allocates funds. The main advantage of this arrangement is that the individual employer can avoid the expense and effort required to develop materials, scheduling and techniques. A second advantage is that employers who would not attempt to initiate an ABE program if they had to do all of these things themselves might be encouraged to offer ABE for employees who need it.

A disadvantage which is related to this approach has to do with curriculum tailoring and revision. Getting feed-back from the users of the materials to their creators is made more difficult when they are centrally-developed, because program administrators seldom have continuing close relations with curriculum developers. In addition, developers tend to emphasize the creation of the first product more than its revision and updating. This will be discussed further in the section dealing with curriculum, but as far as disadvantages are concerned, the schools do not appear to be any more or less interested in revision than other developers of materials and programs.

B. EMPLOYERS

This subsection treats the several organizational arrangements through which employers offer ABE to their employees. First, a few companies, as represented by the Eastman Kodak Company in Rochester, New York, take complete responsibility for initiating, operating and funding a program.

A second arrangement involves the employer who receives a contract from the Manpower Administration, or other federal government source, and uses the money for program operation. This arrangement exists in Cleveland at the Republic Steel Corporation where the parent company has formed a wholly-owned subsidiary company responsible for taking care of all of its training needs. The MA money is given to the subsidiary and comprises one of the subsidiary's components referred to as "Government Assisted Programs".

Bell Telephone in New York City partly resembles both Eastman Kodak and Republic Steel. It developed its own program for training operators in alphabetizing and number recognition and operated it for more than a year. It then accepted a Manpower Administration contract which it is presently using to fund the program.

The Riegel Paper Company operates an ABE program which was designed and supplied by the North Carolina organization of community colleges. The latter afforded the impetus for the program's initiation, and the company agreed to offer its facilities.

An advantage of company operated programs is their organizational simplicity. Their employees are not baffled by the organizational confusion which surrounds some programs, and they usually do not have to travel to inconvenient training sites away from work. Also, they are likely to be encouraged by knowing that the program is approved and funded by the company.

C. UNIONS

Unions are involved in several of the ABE programs which we visited, as for example the learning laboratory located in the International Laborers' Union Local #423 in Columbus, the Rutgers University project in New Jersey, and the Curtis-Mathes company in Benton, Arkansas (University of Arkansas project). In addition, the steel workers union served as a partner in the initiation of ABE programs in plants in a number of companies in the steel industry.

None of the unions mentioned, nor any other union that we encountered, are presently operating ABE programs themselves. They play a support role by providing recruitment and building space for the program, as in Columbus and in Benton, Arkansas at the Curtis-Mathes plant. Most often the union acts primarily as a publicity organ to alert workers to the educational opportunity available to them.

Leo Kramer, Inc. and the Columbus Board of Education cooperated with the Laborers' Union Local #423 in soliciting the Office of Education for the demonstration grant to fund the laborer's project. Leo Kramer, Inc. operates the program, and the Columbus Board of Education provides a pool of ABE certified teachers to choose from. The two primary objectives of this demonstration grant are to develop job-related materials to be used in training laborers and to insitutionalize an ABE program in a union. This year marks the end of the designated duration of the grant, and it is reported that beginning next year the union will operate the program itself. This will be the first union in the country to take this step, as far as can be determined. (The Laborers' Union leaders indicated that they frequently receive phone calls and letters from other unions across the country for information about their pioneering attempt in the ABE field.)

D. GOVERNMENT

Both state and local participation in ABE projects is generally through boards of education, as has already been described in the subsection on schools.

The federal government participates in ABE by providing the money to operate the majority of programs in the country, but it seldom directly operates programs. In Oak Ridge, Tennessee, the Atomic Energy Commission, a federal agency, does participate in operating a program of ABE linked to skill training. In the District of Columbia, some government agencies, for example the Department of the Navy, operate programs for their employees who need literacy and computation training. (Project GO provides one teacher for the Navy program.)

E. COMMUNITY IMPROVEMENT ORGANIZATIONS

Relatively few organizations working for community improvement operate ABE programs, although they contribute to such efforts by recruiting and creating publicity. In the District of Columbia, the Opportunities Industrialization Center offers ABE as a feeder program for those who wish to enter a program

of skills training, but who need remedial education to prepare them for such training. OIC offers courses in skill training related to eight job areas--auto mechanic, construction trades (brickmasonry, carpentry, plumbing, sheetmetal, pipefitting, and electrical wiring), clerk-typing, keypunching, offset duplicating, electronic assembly, electronic accounting machine operation, and business machine operation. The literacy and computational skills which are required for each of these skill courses vary, but most ABE enrollees remain in the ABE feeder program for six weeks of training six hours a day, five days a week.

In New York City, BOLT, Inc. is both a community improvement organization and a private educational training company. The Puerto Rican Forum is primarily responsible for the policies adopted by BOLT, since BOLT is an outgrowth of the Forum. In the future BOLT intends to market its programs to employers, but to date it has operated with a Department of Labor demonstration grant as its only source of revenue.

OIC is located in the heart of the black ghetto in D.C. and is accessible to a needy target population. The location is an indication to the man on the street that the organization may have a genuine commitment and an understanding of the needs of community residents.

Perhaps the most encouraging aspect of these programs is that they tend to be firmly job-related and aimed at improving individual employment. The Director of Remedial Training at OIC indicated that most of their enrollees are skeptical of the program's efficacy because of previous experiences with manpower development organizations. However, it was reported that these enrollees usually complete the program and are subsequently placed in jobs.

F. PRIVATE PROFIT-MAKING AND NON-PROFIT EDUCATIONAL CONSULTING AND TRAINING COMPANIES

There are private companies which offer ABE programs as part of their consulting and manpower training. These companies, which rely on federal funds for the bulk of their revenues, are paid directly by the federal government in the form of contracts for manpower training, indirectly as sub-contractors to recipients of MA, MDTA, and other contracts, or occasionally by private employers interested in providing ABE.

MIND, Inc. and the Board for Fundamental Education (BFE) are two of the larger companies of this kind. The Eastman Kodak Company uses BFE materials and services in its program, and some steel companies continue to use BFE to operate and supply materials for their projects. Three companies of this type were observed in the field operating ABE projects--BOLT, Inc. in New York City, Skill Advancement, Inc. in New York City, and Leo Kramer, Inc. at the International Laborers' Union Project in Columbus, Ohio.

Most of the companies providing ABE to clients on a contractual basis have come into the area as a result of the federal government's decision, manifested in manpower development legislation, to channel large amounts of money into adult literacy training. One reason for their existence is that they offer the employer expertise in an area of specialization which the employer does not have, and often finds infeasible to acquire himself. It is much easier for the employer to subcontract this chore out to the specialists.

IV. SETTING AND SCHEDULE

A. SETTING

The adult basic education for which information was collected in the field is conducted in one of the following settings:

- The job site
- A public school
- A company learning center off the job site
- A non-company-owned center off the job site, e.g., union hall

1. On-the-Job vs. Off-the-Job. The largest number of programs visited, eight, featured instruction at the job site. Programs of this type include the Los Angeles Schools, New York Telephone, BOLT, Inc., Skill Advancement, Inc., Riegel Paper Company, Eastman Kodak Company, Leisure Group Corp. and Curtis-Mathes (University of Arkansas project), and NARTRANS.

Two key variables affecting enrollees' willingness to meet for instruction at the job site are their attitude towards the work they do and the attractiveness of the space provided for study. When workers loathe their jobs and do not care to remain at the work site longer than necessary, they tend to resist recruiting efforts for ABE offered in the plant. Similarly, when the space in which ABE is held is drab or poorly arranged, students may react negatively to recruiting.

One company president in New York City offered his office as a meeting room for the ABE class being conducted by Skill Advancement, Inc. This attempt to provide pleasant surroundings was appreciated by the teacher and gave the students an additional reason for entering and completing the program.

At one plant, workers reportedly dislike their work so much that they are reluctant to remain there on their own time. The ABE class, which is off the job site, is much more attractive to them than it would be if it were located at the plant. Six ABE Projects visited conduct or are related to training in facilities away from the job site: Rutgers project in New Jersey, Project GO in cooperation with OIC in Washington, D.C., Republic Steel, Mid-West Co-op, Oak Ridge TAT, and the AEC in Richland, Washington.

On the other hand, convenience and teacher-student rapport are two factors which appear to cause students to enjoy classes held at their place of work. Skill Advancement, Inc. administrators and teachers indicate that their enrollees at client companies appreciate the convenience of having teachers come to them at work. They often don't continue their education past ABE completion, because they would then have to utilize GED centers, most of which are operated by the city of New York, and they sense that the atmosphere at the public centers would not be as intimate and convivial as the one they enjoy in their ABE classes.

The attitude of workers towards one another affects the chances for success of a program operated at the work site. In one small, unattractive plant which was visited, the work force is so small that classes in ABE are highly visible to non-participants. As a result of teasing by fellow workers, all of the men in the program quit. Their reading inability was ridiculed and their pride was hurt. All of the women enrollees, nine of them, remained in the program.

In another plant the work force is so large that ABE enrollees are much less visible. In addition, the company keeps the names of ABE enrollees confidential in order to avoid possible embarrassment for them. Outside observers, including those visiting that program for the present study, have not been allowed to view the students in class or to interview them. This approach

may shield them from unnecessary embarrassment and encourage them to enroll, or, on the other hand, it may imbue the program with a negativism by accenting that enrollment is something to keep hidden rather than to be proud of.

2. Union Halls and Schools. In Columbus, Ohio, the ABE program for laborers is located in a learning laboratory on the second floor of the union building. The major advantage of using these premises is that the enrollees are not highly visible to others. They might be doing any number of things at the union hall, besides studying, so that their presence there is not immediately connected with ABE. Even if they were highly visible, it is doubtful that their fellow union members would disparage them for participating in a union-supported activity.

Off-the-job training in public schools is often viewed in an unfavorable light because it is commonly believed that public schools offering ABE interact with adults in much the same manner and with the same unsatisfactory consequences as they do with some children. Unfortunately, this sometimes may be true. Adults who associate unhappy memories of failure with this setting are not likely to return as adults for more of the same. The monumental skepticism of the poor towards education, so often commented upon by sociologists, is one of the first barriers the ABE program faces.[1]

However, there are ABE programs in some public schools today which differ dramatically from the conventional stereotype. For example, in Little Rock, Arkansas, the District of Columbia, and White Plains, New York, noteworthy adult basic education programs exist in public school settings. The

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[1]See for example Xerox Corporation, Federally-Funded Adult Basic Education Programs: A Study of Adult Basic Education Programs in Ten States; New York, 1967, p. 38.

Demonstration Center in D.C., the Rochambeau School for Adult Training in White Plains, and the Little Rock Vocational Training School are each devoted solely to the education of adults. From visits to the D.C. Demonstration Center and the Little Rock Center and much reliable information on the Rochambeau Center, we feel they compare favorably with any program encountered during our research. It has been reported that adults at the Rochambeau Center are proud of their school and generally do not associate it with painful memories of childhood schooling. In fact, many of the students there have no memories of childhood schooling, because they migrated from the South where they received no education whatsoever. For many of them the Rochambeau School is a kind of status symbol, because it is reserved for adult use and is the source of the only education opportunity they have had.

The Los Angeles school system was included in our sample of 15 job-related projects because it is involved in job-related ABE, as defined for the purposes of this analysis, through its activities as a subcontractor for MA contract recipients. The public school ABE centers mentioned above provide skills training, as well as ABE, but their students most often either are not presently employed or are not taking courses in work skills and ABE as a means of being upgraded within their company or as a way of being hired for a particular job by a designated employer. An additional difference is that the L.A. schools program provides ABE at the job-site, not in public school buildings.

B. SCHEDULING

Program scheduling constitutes the way in which adult basic education training is broken into time segments for enrollee consuption. This scheduling varies from program to program and is probably a significant determinant of program effectiveness.

Four categories can be used to describe the frequency and timing of the programs which were visited:

- Trainee-scheduled, varying frequency of instruction
- Administrator-scheduled, infrequent instruction
- Administrator-scheduled, medium frequency of instruction
- Administrator-scheduled, frequent instruction

In addition to those above, a second set of categories is needed to describe the scheduling in terms of company vs. enrollee's time. This can be done by referring to programs as being on the company's time as a federal contract (MA) provision, on the company's time of its own volition, on the enrollee's time, or on both company and enrollee time.

In the following subsections the strengths and weaknesses of each of these categories of programs are discussed using examples gathered during field trips.

1. Trainee-Scheduled Programs. There are four programs in the sample which encourage enrollees to take advantage of ABE facilities voluntarily on their own time. These include the laborers' program in Columbus, Riegel Paper Company in North Carolina, the Rutgers University program in New Jersey, and the TAT program at Oak Ridge, Tennessee. In the laborers' project and at the Riegel Paper Company, respectively, a learning laboratory and a classroom are available for use on trainee time. In New Jersey the Rutgers University program with Fedders Corporation is an English as a Second Language class which meets on a scheduled basis. The enrollees are encouraged to attend classes, but there is no stipulated minimum number of hours which must be completed or a rigid schedule which must be followed.

At the Oak Ridge program, skills training is the students' primary concern. They are encouraged to take supplementary ABE if they cannot read or compute well enough to use the written instructional materials designed for their skills training. The students attend ABE on a voluntary basis and do not follow a rigid schedule. ABE is offered as a remedial or feeder vehicle to expedite skills training and is completely voluntary to the extent that its absence will not preclude learning the job skill.

It has been observed that in programs which are trainee-scheduled and on the trainee's own time, if he is employed full-time, attendance tends to be irregular and enrollment tends to be unusually small. (This situation exists at the Columbus laborer's union and at the Riegel Paper Company.) There are a number of possible explanations for this. Persons already employed have less cause to learn literacy and computation skills than those who are required to do so as a means of getting along in skills training. Those already employed are able to master the skills required on their jobs, and unless the ABE is related in their minds with job upgrading they will not be easily persuaded to take advantage of it.

Also, workers become physically fatigued on the job and would normally prefer to use off-work hours for relaxation, not study, especially if no released time is offered. If the employer does not support the program strongly enough to provide released time, this may indicate to the potential enrollee that the employer does not connect the ABE with career ladders. This perception would certainly reduce enrollment.

Irregularity in attendance is frequently observed in these programs due largely to motivational problems, but also due to the seasonal fluctuations in the availability of regular and over-time work. The laborers in Columbus are severely affected by seasonal fluctuations of this kind.

Clearly then, the main disadvantage of these programs is that enrollment may be low, and attendance may be irregular. The classes will usually consist of self-selected individuals who are highly enough motivated to overcome the obstacles to regular attendance.

On the other hand, there are advantages for those who attend at their own convenience. They are not given the feeling that they are falling behind in their progress or their work, when learning is self-paced. The enrollee is encouraged to proceed at his own rate and to keep in touch with teachers to locate his progress toward his own goals.

2. Administrator-Scheduled Programs, Infrequent Instruction. Three programs which were visited offer only a small amount of ABE in terms of the total or monthly number of hours of training offered. These include the Midwest Coop programs, NARTRANS and Republic Steel.

At the Midwest Coop project instruction is planned to be offered two hours a day, four days a week, for a total of 150 hours. The training is planned to be conducted on one hour of released time combined with one hour of the enrollee's own time. On-site observations indicated that only one of the various coop programs has released time, and most meet for an average of two hours a week rather than eight.

NARTRANS similarly offers only one two-hour session per week. Republic Steel requires its enrollees to attend classes in its training center one day a week for eight hours of instruction. However, only two and one-half of the eight hours are devoted to reading and arithmetic training, so that only two and one-half hours of ABE instruction, as defined for the purposes of this analysis, are given per week for 30 weeks.

The trainees at NARTRANS and Republic Steel are being trained on company time because the programs are funded with Manpower Administration contracts for training the "hardcore unemployed", and it is a stipulation of these contracts that trainees be paid for ABE training as if they were working.

3. Administrator-Scheduled Programs, Medium Frequency of Instruction. Three of the programs observed feature instruction equivalent to four or five hours per week: Bell Telephone and BOLT, Inc. in New York and Leisure Group, Inc. in Pine Bluff, Arkansas (University of Arkansas Project). BOLT offers a choice of total hours of instruction to fit the needs of the client employers to whom they offer their services. The Leisure Group, Inc., schedules classes twice a week for two-hour sessions. The weekly number of hours of ABE instruction which is offered at New York Bell Telephone is difficult to calculate, but the total number is approximately 160.

An advantage of the fixed schedule is that trainees can expect to come for training at a given time and can enter a cadence which increases the likelihood of regular attendance. Training is done on company time at companies using the services of BOLT and the Los Angeles City Schools. This is an additional factor working to increase enrollment and to stabilize attendance. The Leisure Group, Inc. enrollees attend on their own time. The company has no federal contract that affects timing of schedules. The enrollment there has been fairly small, but it is difficult to determine whether it is small in relative terms, because the number of potential enrollees at the plant was not determined.

The Leisure Group, Inc. enrollees were the only ones in any program encountered in the present analysis who receive cash payments for class attendance. The teacher reports the number of hours they each spend in class on a quarterly basis, and the company pays them at their base-pay-rate for one hour of every two hours spent in class. This is not done primarily to increase enrollment

or to encourage students, but rather as a means of "doing something nice" for their people. The personnel official in charge of the program did not perceive any upsurge in enrollment related to this practice, and he stated that he did not believe people could be persuaded to enter such training using money as a reward. He felt they ultimately must be self-selected by a desire to learn. The practice may have established the company's commitment and interest in the program, and this may have helped retain those who did enroll. The personnel official indicated that enrollment has remained steady at approximately 10 students, and that the company had circulated among its employees in March 1968 an "interest finder" questionnaire which revealed 28 employees interested in initiating the first class.

4. Administrator-Scheduled Programs, Frequent Instruction. Five of the ABE projects observed have frequent instruction. Eastman Kodak operates programs which offer from 6-10 hours of instruction per week for from 10 to 25 weeks. Total instruction ranges from an average of 100 hours to 250 hours. Project GO teachers at the District of Columbia OIC project teach six hours a day, five days a week for an average of six weeks, or a total of 180 hours of instruction. Skill Advancement, Inc. in New York offers classes four times a week for 2-hour sessions for four months, or approximately 120 hours of instruction. BOLT, Inc. in New York also offers eight hours of instruction per week for a total of 100 hours of instruction. BOLT's most high-powered program totals 150 hours. Finally, the Los Angeles Schools offer an average of 200 hours of instruction at their projects.

The total hours of instruction offered in these programs ranges from an average of 100 hours to an average of 200 hours. These are not extremely high totals, but the weekly instruction is fairly concentrated. Students make a difficult decision in entering such programs in the first place due to the demands made on their time. Similarly, the frequency of a program's instruction serves as a rough indicator of the commitment of those operating

it. Apparently the mutual sacrifice made by teachers and students in time and effort reinforces the resolve and expectations of most of those involved, since enrollment in these programs is large and attendance regular. The retention rate of trainees is particularly high in those programs which work with people who expect to be placed in a good job or upgraded by their present employer.

From our fieldwork we have learned that frequent instruction need not be limited to one particular type of setting or enrollee status. Those projects designated as having frequent instruction exist in three very different contexts. The Skill Advancement programs are operated at the job site with a sharing of released time between employer and employee. The Project GO-OIC program works in an off-the-job training facility with individuals who have made the decision to take full-time training in order to be placed in a good job. (OIC finds them part-time employment at night and on weekends for the duration of their training.) The Eastman Kodak program is on company time, paid for by the employer, and is offered to individuals who are employed and seeking upgrading. From this variety of contexts, it is apparent that the intensity of an ABE program is ultimately limited only by the creativity and willingness of enrollees and program operators.

V. MATERIALS AND METHODS

This section on teaching materials and methods is organized around three general topics. The first topic concerns material content and its job-relatedness. The second topic, teaching methods, consists of a comparison of group instruction and individual instruction. The last topic is the use of instructional hardware.

A. MATERIAL CONTENT

In the opinion of their administrators each of the programs observed is job-related with regard to the content of the materials used; however, we believe the degree of job-relatedness of materials varies substantially from one program to another. Programs were observed which use materials directly related to the work which is, or will be, performed by enrollees. In New York City, trainees in the New York Bell Telephone program are taught to alphabetize and to read numbers correctly so that they will be able to perform these tasks in their new jobs. In Columbus the laborers' program has a blueprint reading component, and Leo Kramer Inc., which operates this program, has developed reading materials with job-related vocabulary and content which are used in combination with EDL Reading 100 materials.

One advantage of using these materials is that they are more relevant and often more interesting to trainees than conventional texts. They may also serve either as a way of communicating information which can help trainees in their job or as a way of increasing interest in their work.

A weakness of job-related materials is that they may be so job specific that the level of reading achievement and comprehension involved may be extremely narrow and limited to the job. The broader danger is that learning skills may not be acquired which are necessary for getting and retaining other jobs in the future.

In the English as a Second Language (ESL) programs observed, the vocabulary taught tended to include terminology associated with the jobs being performed by the ABE trainees. In this sense it is directly job-related. The Fedders Corporation in New Jersey (Rutgers University Project) and Gouverneur Hospital in New York City (Skill Advancement Inc., Project) are examples of this approach. Teachers and enrollees in these programs agreed that the trainees had improved significantly in their knowledge of words needed for their work. They felt more comfortable and self confident on the job as a result.

A second category, materials indirectly related to the job, consists of those materials developed centrally and disseminated to a variety of programs training people in diverse job skills. For example, rather standardized mathematics materials are used by the Los Angeles City Schools for various client companies.

The majority of ABE programs use materials which are neither directly nor indirectly job-related, ranging from daily newspapers to sophisticated programmed texts. The best projects of this type have off-the-shelf materials with supplementary materials relating to the personal interests and problems of participants.

B. TEACHING METHODS

1. Group Instruction. Eleven of the programs observed rely on group instruction. As was seen above in the discussion of material content, the texts and materials used in these projects are generally standardized and off-the-shelf. Observed exceptions to this are the two English as a Second Language (ESL) classes in which materials are largely teacher-developed and indirectly job-related.

The group approach is extremely unwieldy and difficult to manage when the class is large and/or heterogeneous. One ABE project which was observed has a large, heterogeneous class, in terms of achievement level, which is located

in a large room with poorly arranged tables. The teacher combines group participation with individual over-the-shoulder tutoring to compensate for the heterogeneity, but his job is made extremely difficult by the size of the class.

The primary advantage of group instruction is exemplified by most ESL classes. They generally have a vitality and sense of excitement resulting from inter-actions of curious people trying together to learn information which they know will be of immediate value to them. The esprit de corps which accompanies most ESL classes is strongly related to stable attendance.

Classes using conventional lecture and repetition techniques seldom create an esprit de corps and may be unfortunately reminiscent of childhood schooling for most enrollees. It is encouraging that this kind of class was not encountered during on-site visits.

2. Individualized Instruction. Some form of individualized instruction was observed at four projects. The laborers' learning lab in Columbus and the Riegel Paper Company project rely on individual instruction, whereas the Oak Ridge TAT program and the BOLT programs in New York combine individualized instruction with small group interaction.

The major advantage of individualized instruction is that it is an attempt to match instruction with individual ability and is a good way of dealing with a large group of enrollees at a variety of achievement levels. It also facilitates self-pacing and voluntary enrollment at the trainee's convenience. The individual working alone, with the assistance of a teacher or resource person, may schedule instruction to fit his own requirements and need never feel that he is being left behind.

There are several disadvantages to this approach. The individual may have difficulty determining where he presently stands, in relation to normal

improvement and goals he may hope to attain. A nautical analogy would be a landlubber in mid-ocean with no knowledge of winds, currents, or sextants. Although the trainee's predicament is not so serious, unless the resource people who work with him in the lab are extremely capable, he very well may become disoriented.

Loneliness is a problem for students relying exclusively on non-tutorial individualized training, especially programmed instruction. Some ABE programs are attended by persons who arrive individually, depart individually and seldom communicate with others in the project.[1] The experience lacks the electricity which fills the air in well-managed group-interaction classes. This loneliness is no doubt an important variable affecting recruitment and attendance. It is much easier for the trainee to make the effort to attend if friends or acquaintances accompany him or are likely to be at the project for some interaction when he arrives.

Programmed self-instruction was observed at only two projects. When this technique is relied on exclusively the problems just mentioned are magnified. Programmed texts should usually be supplemented by other materials in order to rest the student, since they are often enervating when used for more than a short time. The main advantage of this technique is that it minimizes the instruction that needs to be given by teachers and allows a small staff to successfully manage a large number of students.

C. INSTRUCTIONAL HARDWARE

The learning laboratory (for laborers) in Columbus is the only project visited which has a complete selection of instructional hardware which is frequently

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[1] Similar findings on the loneliness of ABE participants are reported in Analysis and Interpretation of ABE Experience in the Inner City: Toward a Theory of Practice in the Public Schools, Annual Report May 1969 - June 1970, Center for Adult Education Teachers College, Columbia University, 1970.

used by its students. A number of state and city-funded ABE projects were observed as sidelights to the programs in the sample, and in some of these, impressive hardware is available. However, according to supervisors of these programs, the machines are not used extensively. Most of the learning is done at tables with workbooks.

In Columbus the students freely use an Audex machine (a combination of tape-recorder, movie projector and Learning 100 software); a controlled reader; a Didactor (a video programmed-learning device); a tachistoscope (a machine which flashes words or numbers on a screen); and individual tape-recorder carrels. Students interviewed at the laboratory expressed satisfaction with the variety and interest provided by these machines.

Some program administrators have bought machines, such as the expensive Edex, which require a certain amount of sophistication on the part of the teacher for its use, as well as group participation, and have observed them going unused. For various reasons many of the machines do not get as much use as had been anticipated by program operators. This is a great disadvantage when the expense of such hardware is taken into account.

A trend is apparent now with regard to project administrator's attitudes towards hardware. They have generally come to the conclusion that machines are not a panacea and that they have to be selected carefully and used in combination with other materials for best results. When they <u>are</u> selected carefully for easy teacher and student use, they are valuable as a source of variety and increased motivation.

VI. STUDENT MOTIVATION

The ultimate concern of all ABE project activities is student motivation, for when students are positively engaged in the learning process, the necessary, if not sufficient, conditions are present for attaining any job-related ABE goal. The following discussion focusses on several hypotheses having to do with student motivation. Relevant information was collected from interviews with students, teachers, administrators and other personnel connected with operating programs.

The first hypothesis which emerges from the analysis is that the intensity of motivation is directly related to the trainee's reasons for entering the ABE program--what he anticipates getting from the project. Furthermore, this prior expectation is probably the single most important variable affecting his motivation for the duration of his stay in the program.

The manner in which the potential student learns about a program, becomes interested in it, and, finally enters or is engulfed by it, is determined to a large extent by the program offeror's reasons for having a program. This reason, in turn, is often very closely related to funding arrangements and sources of money. Hence, a rough indicator of the expectations of potential students with relation to a particular program, as well as their reasons for entering or being forced to enter ABE training, is the source of funding which supports that program. For example, four of the 15 programs observed are funded with Manpower Administration contracts designed to help employers pay for training and orienting "hard-core unemployed" workers to the "world of work". As was indicated earlier in the report, the ABE trainees in Manpower Administration (MA)-funded programs are enrolled as a mandatory requirement for being retained in the program. This means that the enrollee is in ABE, or he loses his job. He does not choose ABE, and may not know before joining the company that he will receive this academic training.

In the discussion of program setting and scheduling it was noted that two of the four programs funded with MA money offer infrequent ABE instruction, that is, less than three hours per week. The motivation of the ABE enrollees as company employees may be strong, but it appears that in these programs the enrollees are not intensely involved with ABE per se, if only because they do not have much to become immersed in. This ABE training is largely intended to socialize the students into a company-fostered view of work and is not usually perceived by students as being something that will affect their job assignment, or will lead to upgrading, since it is offered immediately following hiring.

Six of the programs we visited are funded with federal demonstration grants--four from the Office of Education and two from the Department of Labor. These programs differ widely in their approach to scheduling and in the reasons for which the offerors have initiated them. There is no common student reaction to them.

However, the general rule holds true that the student's early expectations are directly related to his motivation for the duration of ABE training, and these demonstration-grant projects do provide an indication of what kinds of student expectations probably produce large enrollment and intense motivation. The programs which BOLT and Skill Advancement operate in New York City are well attended by interested students, probably because of the nature of the student population and their expectations. They are nearly all Spanish-speaking and employed in low income jobs. They expect to be able to learn enough English to help them in their present jobs and perhaps to allow them to move into other, better jobs. The key is that their expectations are primarily utilitarian in a very immediate sense. They want to learn the English language and to apply their new knowledge to their present jobs. The usefulness of their training is immediately apparent to them and to their teachers.

In the laborers' learning laboratory in Columbus and in the University of Arkansas job-related projects, enrollees probably do not perceive such immediate and utilitarian benefits flowing from their ABE training. Their expectations are not as clearly formulated, and attendance is small.

The OIC program which is supplied with two Project GO teachers is well-attended, and student motivation is reportedly good. Trainees attend full-time, whether for skill training, or for ABE as a feeder program leading into skill training. Their expectation is a good job, and they make the decision to undergo full-time training and to support themselves with part-time work during this training period. They are not given stipends.

This group of students provides an example of how specific, utilitarian objectives lead to a high degree of motivation and stable attendance. It seems likely that the care taken with follow-up is probably an important contributing factor.

Rutgers University (the State University for New Jersey) serves as a broker to steer employees from various companies in New Jersey to available ABE classes, not all of which are job-related or at company sites. The students do not appear to be highly motivated in some of these projects. However, at the Fedders Corporation, which offers an English as a Second Language class for Spanish-speakers, the students are learning English by regularly attending lively group sessions. They have an immediately utilitarian purpose for attending, and motivation is strong.

The remaining five programs are funded respectively by an employer (Eastman Kodak); a state community college system (Riegel Paper Company); an MDTA Contract (Mid-West Co-ops); and a combination of private and federal operational funds (TAT in Oak Ridge and the AEC plant in Richland, Washington). As with the demonstration grant projects, student expectations in these programs vary significantly.

At the Riegel Paper Company, workers can study to pass the company's written test which makes them eligible for promotion into a different job area, and they can take advantage of the ABE facilities at the plant on their own time. No men have moved into different jobs via ABE training as yet, because most of those who would be interested are at the highest levels of their present job, and they perceive their benefits as being better than those they would receive by being promoted to a different job. What expectations the men who take advantage of the ABE facilities have are unclear, and attendance is sparse.

At the Eastman Kodak plant the enrollees in the trade training course receive ABE in combination with skills training. They anticipate being made apprentices in skills areas, but the company indicated that in a previous cycle of the course only 2 of 16 pre-apprentice trainees had been made apprentices. Their motivation and attendance seem to be fairly high and regular, probably because they are expecting, possibly unjustifiably, to be upgraded within the company.

At the Atomic Energy Commission plants in Oak Ridge, Tennessee and Richland, Washington, the trainees are also learning job skills, using ABE to expedite this. At Oak Ridge the overall program has a good retention rate, because trainees expect to get good permanent jobs.

A second hypothesis which seems to be descriptive of trends in motivation among ABE programs is that frequent group instruction seems to be related to strong motivation, large enrollment and regular attendance. The Eastman Kodak, Skill Advancement, Inc. and OIC-Project GO programs provide evidence supporting this hypothesis. On the other hand, voluntary attendance and individualized instruction appear to attract fewer enrollees and to require that those who do enroll already have well-formed objectives and a tremendous amount of resolve. The Columbus project is the prime example supporting this contention.

It is certain that such factors as teacher understanding and interest, company interest and released time, and the ability of the program administrator affect the motivation of trainees; however, it is their own expectations and perceptions of the purpose of the program which will largely determine their motivation and willingness to enroll. The Columbus project has fine administrators, teachers, curriculum experts and facilities, but the enrollment is minimal. The students are seriously affected by seasonal fluctuations in work opportunities, and therefore might be expected to have lower enrollment than other workers with regular jobs, but they would not be expected to have such extremely low enrollment. The reason for this is that comparatively few workers have been able or willing to see into the future to discern the time when they will benefit most from their training. The program does not help them maintain regular attendance by scheduling fixed classes at particular times and at frequent intervals. According to our second hypothesis, this absence of supportive scheduling is a secondary cause of the very small turnout.

If the first hypothesis is correct and student expectations determine motivation and probably success, the problem which faces ABE programs, if they are to have an impact on the society, is to somehow attract and enroll persons who need ABE for jobs or for better employment. These are often people without expectations, perceptions of job ladders, or motivation. The OIC project offers some indication that these people can be reached and trained. OIC's Director of Remedial Training stated that many of the people who enroll for skills training and ABE as a feeder program have had previous discouraging experiences with job development organizations and public agencies and are skeptical of OIC's ability to place them in a decent job. According to program representatives most of these individuals try the program, stay, and are placed in good jobs. Part of the explanation for this is probably that OIC provides <u>frequent group instruction</u> combined with individual supervision and teaching.

The final hypothesis concerning student motivation is that to attract the skeptical, unemployed people on the street ABE should be combined with skills training and reputable placement. The training can be either after employment or prior to permanent employment, but the job provided must be one that the trainee considers to be worth the effort.

To summarize what has been said, there are a number of variables which affect student motivation. The most relevant of these have been singled out for attention, and several hypotheses have been offered which were derived from observations of 15 programs. A number of those factors which are connected to motivation and which are liable to vary in effectiveness from one program context to another have also been treated in some detail in preceding and following sections.

VII. ASSESSMENT, COUNSELING, AND PLACEMENT

All the programs visited execute some form of initial test to determine the academic ability of incoming students. Only one program, however, uses a diagnostic test and places students at a given level. Another four of the fifteen conduct a post-test and determine students' educational gains. As a part of their assessment, many programs have at least one early counseling session. In most cases these are designed to encourage students to come into the program; in one case it is also used to separate the interested or motivated from those not so. The provision for post-program job placement varies considerably from an immediate job to the promise of future placement. These topics are discussed below under the following headings:

A. When Students Enter

B. While Students Participate

C. When Students Leave

1. Academic Progress

2. Post Program Opportunities

A. WHEN STUDENTS ENTER

1. Formal Testing. All but one program is known to test incoming students during the early weeks of instruction. The exception is at Rutgers which is a referral agency. Many of the schools where students are sent by Rutgers do give formal tests to students. The ABE programs visited rely almost wholly on standardized tests of various kinds. The tests most frequently named include the Stanford Achievement Test (SAT); Adult Basic Education version of

the California Achievement Tests; the Adult Basic Learning Exam (ABLE); and the Wide Range Achievement Test (WRAT). The purposes of using these are three: to screen out those who achieve above a certain level, to distinguish those below fourth grade from those between 4th and 8th, and to gather entry test scores for the eventual determination of academic gains. These tests are reported to serve these purposes adequately.

In some programs, special tests are used. For Project BOLT, for example, two language ability tests and a psychological test are administered. The University of Michigan Aural Comprehension and English Structure Tests and the Thematic Apperception Test were given to the group before and after the English as a Second Language (ESL) course. The gain measured on the first two tests was slight but reputed to be statistically significant. It was the opinion of the research psychologist, however, that these tests were inappropriate for the population. New tests may be developed.

For the ABE and English as a Second Language Classes sponsored by SAI, the Gilmore Oral Reading and the Gates Reading Test were said to be appropriate for the low income Puerto Ricans. The Gilmore Test examines word attack skills and vocabularly; the Gates Reading Test measures reading comprehension.

At New York Bell Telephone, the Nelson and Nelson Denny Reading Tests were administered in addition to the SAT and an entrance test. The Nelson tests indicate reading speed and are used to determine which women need additional help in speed reading. The Nelson Denny Tests were given to the men to indicate reading level.

None of these tests was designed as a diagnostic instrument and none is used alone for that purpose. They are used for general placement into a skill range; for example, below 4th, between 4th and 8th. One program, at Riegel Paper Company, however, used a specifically designed diagnostic test. The items on the test are arranged in ascending order of difficulty and grade

equivalents given to them. The score received on the test is easily equated to a grade equivalent and the student is placed in materials of the same or lower grade equivalent. The test, developed by Joseph Carter at the Board of Education in North Carolina, has proven to be useful for placing most students at a satisfactory grade level.

During the field interviewing teachers and program directors at several programs stated that they think testing tends to alienate students. Several different techniques were used to obviate the negative effect of early testing. At two projects, the staff delayed the test for a week or more until they felt they had earned the confidence of the students. They believe that students were less threatened and consequently performed better. Other projects administer the test as frequently as six week intervals to help students overcome their test taking fears. Such techniques have their disadvantages. In the case of delaying the test, program placement is either still undetermined or must result from informal testing and analysis which may prove less accurate. In such a trade off situation teachers expressed their preference for the delayed test; they felt the "wasted time" would be more than compensated. Since no conclusive evidence exists on the topic it seems the decision should rest on the experience and ability of the teacher. In the case of frequent test taking the disadvantage is more permanent. Students learn the test items and earn spuriously high achievement scores. Such a practice inflates the student's achievement and gives him false hopes.

Although at the time of the field work, no programs had a test or tests for physical disabilities, the inclusion of these in the assessment package is being planned by at least two programs.

2. Initial Counseling. In addition to administering a test, most programs conduct an initial interview with the prospective student. These interviews range in length, differ in place and scope but all aim at maximizing the likelihood of the trainee's completing the program. Typically, these interviews which take place in or near the ABE classroom range from one to three hours. The topics discussed include the prospective student's test results and his particular interests and dislikes. Some variations exist in the New York Telephone and SAI programs. The initial interview conducted by Bell takes place in the home of the prospective student. The trainers make a home visit to determine the trainee's understanding of the program, his willingness and his eagerness for it, and his preference if another job were offered him. The SAI teachers meet with the prospective trainees at their job site. They also talk to the supervisors and personnel department to learn the employee's work histories, their degree of commitment and their attendance. On the basis of this initial interview the New York Telephone Company excluded some prospects; the SAI staff could not. For those programs who want, or need, to screen out potential drop-outs, the New York Telephone Company's method is recommended, for, as can be expected, their program was characterized by high attendance and low attrition rates.

At the Training and Technology program at Oak Ridge a variation of the initial counseling and assessment is found. Preceding each training year is a Voluntary Summer Pilot Program in which trainees work under conditions similiar to those to be encountered in the regular training program. Staff can observe them during a 12-week period and counsel them based on these observations.

3. Initial Placement. Although most programs use these mechanisms--tests and interviews--for accepting people into the program, only one has provision for placing them in a particular spot in the program. As mentioned above, Riegel gives a diagnostic test and uses a program divided into modules.

Placement is made into the particular skill module indicated by the test results. For most programs, however, all trainees enter the program at one of three general levels, or even at the same point, and progress together through the program at a pace determined by the teacher.

B. WHILE STUDENTS PARTICIPATE

Although counseling is considered very important by most ABE program personnel, few programs have any staff assigned to this function. Generally, counseling, either educational or social, is carried out by the teacher in an informal way during, before, or after classes. It is often directive and unimaginative.

A few programs have counseling components but these are the exception. One is found at the union programs sponsored by Rutgers University. In each plant there are two union members who are paid four hours a week to serve as counselors. They conduct an initial counseling session during which they discuss the union member's educational achievements and make known to him the educational opportunities in the area. It is also their job to encourage fellow workers to enroll in the basic education programs. Another exception exists at the Oak Ridge program. Although this program is not an ABE program per se, but rather a technical training program with an ABE component, its guidance and counseling effort provides an interesting example of what can be done when funds are available. A guidance and counseling staff was set up consisting of a full time coordinator and six part-time counselors. Their principal function is to assist trainees in their personal adjustment and assist the staff in its educational goals. The guidance staff also has the responsibility for the testing and program placement tasks. In carrying out the first function, each counselor is responsible for a training area. Individual counseling sessions are held monthly and small group sessions with six to twelve trainees are held twice a month to discuss topics related to training and future employment. These were considered the most effective means of changing trainee attitudes and behavior patterns.

C. WHEN STUDENTS LEAVE

1. Academic Progress. To some extent, student achievement in reading and mathematics is a measure of program effectiveness. When students express educational gains as their goal, or when a test is a prerequisite for obtaining a job or for promotion, and when all or most students demonstrate sufficient academic improvement, we may assert that the program is to that extent successful. We cannot determine from such gross data, however, the particular strengths or weaknesses of the academic training or the contribution of the program to employment goals generally. Such inferences must come from the qualitative assessment made by the training staff and from information on post-program activities.

But since student academic achievement is commonly accepted as an indication of program success, we attempted to collect data about it. Taken as a whole, the results are not very useful. The data are scanty and so dissimilar that comparisons among projects are next to impossible. There are several reasons for this: (1) some programs rely on pay increases and job retention solely as measures of program success; (2) nearly half the projects do not give post-tests or have not administered them to a sufficient sample; and (3) although more than half did administer post-tests, only four maintained scores in a way that could be used--and these used several different tests.

Incomplete figures for the University of Arkansas project are available. They show that for 46 to 300 hours of ABE, gains in reading reportedly range from seven months to 1.8 years, and that corresponding mathematics gains range from .98 to 2.2 years. Two different tests were used for post-testing, ABLE and WRAT.

Interviews with the Director of Skill Advancement, Inc. in New York City indicated an expectation of "two to three" grade levels of achievement for 120 hours of ABE instruction. However, the only data we have for this program show that nine students had an average reading gain of 0.5 grade levels and 10 enrollees had an average mathematics gain of 1.47 grade levels. These enrollees were part of a class of 21 individuals at one of the SAI programs--Brooklyn Jewish Hospital. The rest of the class had no post-tests, and no information of this type was available for the rest of the approximately 235 trainees who received instruction during the year. The tests used were the ABLE and the Gilmore Reading.

At the Columbus learning lab, data on achievement gains were available for four of the fourteen individuals who attended from July to October, 1970. This is too small a sample to yield statistically meaningful results. GE Tempo evaluators of the program working for the Office of Education found that for a sample of 50 learners at the lab there was no positive correlation between achievement gains and the number of hours of instruction.

BOLT, Inc. in New York City has data on 168 enrollees who took pre and post tests to measure language achievement. Four tests were used: Thematic Apperception Test used by the U.S. Foreign Service Institute graduates, U. of Michigan English Oral Comprehension Test, designed for graduates of a 200 hour college course, U. of Michigan English Structure Test, designed for the same group, and 10 selected job-related words. The first test involves a scale of 0-5, and the average gain was 0.7 (from 0.9 to 1.6); the second two tests use a 1-100 scale and the respective mean gains were 7.84 (from 42.1 to 49.9) and 7.28 (from 39.4 to 46.7); the last test uses a 1-10 scale, and the mean gain was 0.7 (from 1.2 to 1.9). The results are not calibrated to grade levels and are therefore not comparable with the other projects' scores.

Results from an Analysis of Reports on Adult Basic Education Programs. In an effort undertaken by two consultants to the Ford Foundation, similar difficulties were experienced.[1] The consultants, Mrs. Stein and Mr. Schrank, solicited hard data from nearly 100 private or public-financed adult basic education programs or research firms. Their aim was to determine average grade level advance among different programs and, in turn, to establish realistic goals for ABE students. They found, as we did, a scarcity of hard data but some useful reports. Information about 13 programs was received and some conclusions drawn about rate of grade level advance. Their conclusions and their qualifying comments are reported here since they provide a framework for ABE program developers and evaluators.

The authors point out that comparisons among programs present many technical difficulties. First, the tests vary from program to program and then the reported gains are not comparable in the strictest sense. Second, the student's entry grade levels vary widely. Thus, one compares rates of gain from illiteracy to fourth grade with rates from grades five to nine. These groups may involve different learning curves. As the authors point out, these and other technical problems remove this type of comparison from the realm of formal research.

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[1]Stein, Susan and Shrank, Robert, "Basic Education: What Are the Realistic Possibilities?", Training in Business and Industry; June, 1970, pgs. 40-44.

The conclusions they present do not represent any final judgments but rather an attempt to provide general but realistic expectations in basic education for out-of-school adults. Their conclusions are:

1. There is a wide variety in grade level advance among different programs. Gains of one grade are reported to require a maximum of 300 hours for reading and math in one program and a minimum of 25 and 33 hours in another program.

2. In calculating a reasonable minimum, maximum, and mean, it is generally accepted that the elimination of extremes creates a more realistic answer. Using this approach, the minimum of number of hours reportedly required for advancing one grade level is 45 in reading and math. The maximum is 218 hours and 200 hours, respectively. The mean is 90 hours.

3. The Armed Forces programs for low scoring recruits covering over 300,000 men averaged grade advances of 1.3 in 120 hours.

4. Industry run in-house programs for employees where grade advance is closely correlated with promotion seem to have faster rates of learning for adults, i.e., 2.6 grade gain at Ford Motor Company or 3.6 at Corn Products, than those in projects that offer unrelated education such as the Oak Glen Project with a .4 grade advance or 1.1 in projects surveyed in the Greenleigh Report.

2. Post-Program Opportunities or Placement. These differ as much as, and in the same way as, the goals and general design of the programs. The programs may be broadly considered to be of three types: (1) hire first, then train, (2) prepare for immediate job promotion, and (3) train for eventual job promotion. Consequently, three categories of post program benefits are discussed:

- Job Security or Insurance
- Short Range Job Improvement
- Long Range Improvement

Most of the programs belong in the Job Security category. Included are Eastman Kodak, Republic Steel and other Manpower Administration (MA) ones, which are set up to hire first and train later. According to the Eastman Kodak program and the MA contracts, trainees should complete basic education in order to work effectively at their jobs or to qualify for continuing employment or promotion. Other Programs also offer job insurance. To those Puerto Ricans who need to read and write English to pass the Civil Service Exam in order to retain a janitorial job, Project BOLT provides the training. For those needing ABE to pass an apprenticeship exam, the Los Angeles Industrial Support Program offers job security upon completion of its program.

Immediate job improvement is provided by several programs, some of which also provide job insurance. The two programs for Puerto Ricans, SAI and Project BOLT anticipate that the graduate will earn better wages or move to better jobs. This latter benefit is the implicit goal of SAI which designs its program to build self-confidence. These benefits are attained by the trainee with or without the assistance of his existing employer and without any support from the ABE programs. In contrast, the one program sponsored by the AEC working with industry and universities does have a staff to perform the job placement function. The TAT program in Tennessee regards

placement as "job development--developing opportunities that fit the training and career aspirations of trainees." They attempt to locate trainees first near their homes; when this is not possible they secure jobs outside the state. The mechanisms for placement are quite complete. The project placement officer surveyed the companies in the area to determine which hired employees in TAT related skills. Companies were then invited to visit the facilities, to interview and test trainees. Nearly 30 companies visited TAT; others sponsored trainee visits to their plant sites. Ninety-nine percent of the TAT graduates were placed in full time employment. Follow-up surveys, conducted 12 to 21 months after placement showed that 97% were still employed full time. The placement and retention rates give evidence of the superior methods of this program.

It is pointed out that the TAT program is principally a technical training program and that many of its training methods are not replicable in an ABE program. These placement techniques, however, could be emulated in an ABE program and in fact, something akin to the TAT method is recommended in the Proposed Guidelines presented in Volume I.

A few of the ABE programs expect that graduates of their program will be able to be promoted or get a better job in the indefinite future. The programs in the unions sponsored by Rutgers University, that sponsored by the Laborers' Union in Columbus and that at Riegel recruit those persons into their program who require training. Since all these trainees work in union shops where promotions are made on the basis of seniority, promotions are not made upon completion of the program but are, rather, a long-range possibility. These three programs like those in the first category have no need for job placement staff, and, therefore, have none.

VIII. STAFF CHARACTERISTICS, ACQUISITION, TRAINING, AND SUPERVISION

A. STAFF CHARACTERISTICS AND ACQUISITION

The teaching staff in ABE programs fall into three categories: certified teachers, uncertified but experienced, and fellow employees. For the purpose of this discussion certified teachers are those who have received general public school certification, not specific ABE certification.

1. Certified Teachers. More of the programs visited have certified teachers than not. They are employed, as one might expect, in the two public-school-sponsored programs in Columbus, Ohio and Los Angeles, California. Those in the Columbus project are certified in adult basic education. In Los Angeles, those with a BA degree are provisionally certified; teachers with at least six hours in Adult Education are fully certified.

The programs sponsored by the University of Arkansas and by Rutgers also utilize public school teachers. In Arkansas, they include retired elementary school female teachers. In four private company programs, Riegel, Eastman Kodak, Midwest Coop, and NARTRANS, at least one of the teachers is certified. The local public schools and their teachers are used by the TAT program.

2. Uncertified Teachers. In the ESL programs operated by SAI or Project BOLT, the teachers are not state certified but are bilingual. Those at BOLT are college graduates who have experience teaching language. At SAI the trainers have experience in teaching trade skills but not necessarily in teaching language or the academics. Observations in the classes of these teachers indicated their general ease in relating to students and in managing the classroom.

3. Company Employees. The third category of teachers is the company employee. At New York Bell Telephone, these trainers have had years of

experience as workers and supervisors and were selected because of their sensitivity to the problems of the low income population. The Training-Orientation-Placement Program (TOPP) in Richland, Washington, operated by a consortium of employers, used to rely on worker volunteers because of their interest in the students and knowledge of the tasks. Observations about them and interviews with students bore out the company's claim as to the competence of these trainers. Their interest in and interaction with the worker/students was impressive and fruitful. The trainers at TOPP are now full time, paid employees.

B. STAFF TRAINING

ABE staff training tends to receive comparatively little attention in most of the programs we visited. Some few programs do, however, offer preservice and inservice teacher training of varying lengths and quality.

The teachers at Riegel Paper Company or any ABE Learning Laboratory in North Carolina receive a two week orientation and training in the theory and construction of individual programmed instruction materials and programs. Included is an analysis of materials into a logical and sequential order and of methods for assessing student's achievement. This preservice learning is conducted in workshops, near an existing Learning Laboratory, when possible. After the initial group training, individual trainers meet with the coordinator at regular intervals to discuss particular problems.

The Project BOLT literature describes a 15 session teacher training course which is, in practice, roughly adhered to. It includes classroom demonstrations, lectures and discussions on theory and methods of audio lingual teaching and analysis of the particular job vocabulary approach. These sessions are followed by a two to four week teaching internship when new teachers practice under guidance.

New York Telephone offers its trainers, who are not certified teachers or even college graduates, both preservice and inservice training. New teachers participate in a one-week Instructor Training Seminar. During these small group sessions they learn to use audio-visual aids, programmed instruction, speech techniques, questioning and listening techniques, and new training methods. Considerable attention is given to group dynamics concepts; new teachers learn what they are and how to use them. After the week-long seminar, new trainers enter an internship of varying lengths during which they prepare and present lesson plans to the class before an evaluator. During the intern period, the trainers attend six courses of two to five days offered at the telephone company or elsewhere. The emphasis in these courses is not as much on teaching techniques as on the intellectual and emotional needs of the disadvantaged, low-income trainee. Additionally, two workshops in role playing are held at Cornell University; one for new and one for experienced trainers. Throughout the year, audio-visual and communications skills workshops are held for all the trainers.

Observations made by the field evaluators suggest that a teaching staff comprised of non-certified teachers may be as effective as certified teachers, and that when the staff is comprised of hand picked company employees it is likely to be more effective. The most important prerequisites for successful ABE teachers appear to be sensitivity to the problems of the under-educated, low paid or underpaid worker, and considerable open-mindedness about his role in managing learning activities so that the student is not bored, threatened, or reminded of previous negative educational experiences. The company employee who has started near the bottom, is tuned in to others in that position, and has demonstrated flexibility is a logical choice for job-related ABE teaching. Such personnel will require training--but the training emphasis will be on group dynamics and communication with the population (as at New York Bell Telephone), the use of equipment, and not necessarily in the subject matter. Costs of staff such as this will probably be the same as or more than

certified teachers, but these costs must be weighed against the value of employing staff whose interests are relevant to the training and the trainees.

IX. PROGRAM DEVELOPMENT, EVALUATION AND DISSEMINATION

A. THE PROCESS OF PROGRAM DEVELOPMENT AND EVALUATION

The process of program development varies considerably from the hurried start-up approach found in JOBS programs to the systematic planning and testing present in the Oak Ridge, Tennessee program. In between are programs which grew without benefit of preplanning or of built-in evaluation, but evolved slowly enough to enjoy effective revisions and additions.

Ideally, the process of program development should begin by establishing goals and framing them in behavioral language so goal attainment is measurable. Materials should then be selected or developed which facilitate the attainment of the goals. Built into the program may be both student and program assessments. Results from such "tests" would reveal how many students, or to what degree students, are reaching the goals and which aspects of the program are strong or weak. Student assessments tell whether the program succeeded or failed with those students. Program assessments delineate the parts of each program which helped and hindered success (or failure). A program evaluation consists of both types of assessment; one alone is not sufficient. On the basis of the assessments, the program materials and supplies are modified, or the goals restructured, or new evaluation techniques planned.

The operation of an effective program relies on the repetition of the development, evaluation and improvement cycle. When the program is initiated greater resources for these activities are needed than when the program is well underway; but a commitment, philosophical and material, to the development-evaluation improvement cycle must be made if the program is to function effectively.

Realizing or approaching this ideal is considerably easier for vocational skill-training programs than for an adult basic education program. The goals

of an auto mechanics course, for example, are more easily specified. The skills to be learned are largely concrete and cognitive. Measuring "learning" is simply accomplished by stating the skill and time and supervision required for its performance. One test for an auto mechanic, then, could be to reline a set of brakes in one hour without error and without supervision.

The goals of ABE, on the other hand, are sometimes abstract, affective and personal; they include "reading for pleasure", or "gaining self confidence". Measuring these is elusive at best. And the state of the art in testing low income students or in assessing manpower program impact is far from perfect. So it is not surprising that most of the programs we visited do not meet all the particulars of the ideal. In some cases, student goals are mixed with employer goals to such an extent that measurement is impossible. Most programs lack a replicable instrument or mechanism for program assessment. Some programs, however, have been built on the cyclic process in varying ways and have grown correspondingly effective. Some of the particular and noteworthy approaches taken are described in the next few paragraphs.

Some programs established a master plan which delineated development, evaluation, and revision in stages. The first stage was for planning and material development. This was followed by experimentation and then by evaluation. One of these was the Oak Ridge project, which began with a survey of manpower needs in Tennessee. Having determined needs, the program staff selected occupational areas for training and developed unique materials for each of six areas. The Worker Training Program began its first 52 weeks cycle in September 1966. On the basis of information acquired in this period, the second cycle began in September 1967. During the training program, the staff who were responsible for job placement obtained information about job availability and fed this into the program. The establishment of a master plan and extensive testing and counseling sessions prepared the project for the final phase: evaluation and follow-up. The project staff was able to evaluate each stage of training in light of the education and background of the individuals selected and their

post-career objectives. The results of the evaluation became the basis for the next year's program.

A similar process occurred at New York Telephone. As at Oak Ridge, the telephone company conducted a manpower survey to determine available personnel and jobs. Finding that insufficient personnel of acceptable education levels would be available and knowing that poorly trained personnel cause widespread dissatisfaction among customers, New York Telephone decided to try out a training package. One critical aspect of the package was a technique for measuring trainee performance. Using an interview technique, the training staff learned from management the error rates and work attitudes of the trainees. Recommendations for improving the course content were made on the basis of the interviews. It was decided for example, to develop a geography orientation course and a sensitivity training program.

Like the Oak Ridge and Bell Telephone programs, the Columbus project was systematically planned and developed: Phase I was concerned with testing off-the-shelf materials and the selection of appropriate basic reading materials. In Phase II most of the development of job related materials was executed. Phase III involves expansion and revision of job related materials and will include institutionalization of ABE into the labor union.

Differing from these in one important way is the process or approach taken in the North Carolina learning laboratories. The program which has evolved gradually since 1964 is structured to address remedial problems from 1st to 8th grades in language, reading, and mathematics. It has a well integrated program of available off-the-shelf materials and hardware. There is, however, no provision for student or program evaluation, and there are no quantitative data on its success. Program modification was and is made on the basis of opinions expressed by learning laboratory coordinators. Their opinions and the testimony of students suggest it is an effective and successful program. It has served as an example for thirteen states, and has extensive literature about it which is available to program operators and developers.

B. THE PRODUCT OF PROGRAM DEVELOPMENT

Two distinct types of programs emerged from our visits: the first is a detailed and comprehensive program used by a single company; the other is a multiple use one. Dissemination of the latter is simpler and is, in fact, more common.

1. The Single Company Program. Examples of the single purpose program are found at New York Telephone, OIC in Washington, D. C. and Oak Ridge, Tennessee. They are characterized by very explicit relevance to special jobs and an integration of social, occupational and academic training. For example, in the Bell curriculum, about 160 hours are devoted to academic training. Arithmetic, language (spelling, verb agreement, double negatives), speech, and vertical reading are included because each is used in the job. Learning decimals is included because adding toll calls requires it. Knowing how to alphabetize is essential and correct spelling must be mastered. Anticipating and knowing different spellings for names and speaking correctly are a courtesy each customer expects so these are included. The content is not replicable but the specificity of materials is admirable.

Although the New York Telephone company program is too particular for use by another firm, the company is working with one jail in the New York area to adapt a program for them.

2. Multiple Use Programs. In contrast are multiple use programs such as those developed by Los Angeles Schools, Skill Advancement, and Project BOLT. A curriculum outline is developed which names skills to be taught and some of the materials to be used. The project directors then market their concepts and skeleton curriculum to employers.

In the case of L.A. schools, it is marketed to the JOBS contractors. The SAI and BOLT staff give their program to unions, hospitals, and banks which have

many Puerto Rican employees. Once the firm decides to accept the package, it selects employees for the training. These employees are generally performing the same job. The ABE project staff then conducts a task analysis of the job performed by the group and selects or develops materials relevant to that job. For the ESL programs the particular job vocabulary is used in the language curriculum. For a carpenter apprenticeship course in Los Angeles, linear and cubic measurement will be included and perhaps reading materials on the topic of carpentry. The core curriculums were developed or planned during the initial 6 months to one year. They can be adapted in 4 to 8 weeks depending upon the need for supplementary lesson development.

Instruments for student and program assessment must be developed or the existing test modified if the particular adaptation is to be evaluated. In one program, pre and post tests for the supplementary lessons were designed and administered. Results of these tests, which emphasized job-related vocabulary, showed consistently lower scores on the post test. The results on the standardized test, however, showed increased ability after the course. One of two conclusions can be drawn: either the job vocabulary was not well learned, or it was learned but the test is inappropriate. Not until the test is improved, or daily observations of classes made, can the quality of the course be assessed.

A variation of the multiple use program exists at Riegel Paper Company, at the program in Columbus, Ohio and at Curtis-Mathes in Arkansas. At each site a package of materials must be tailored to the particular needs of the training group. The package was assembled by a state learning institution; for example, in North Carolina the ABE program was developed by the Community College personnel and in Arkansas by staff employed by the University of Arkansas. The programs are not skeletal; they include materials from many different suppliers for each skill level; they span grades 1 through 12 and include reading, arithmetic, language, and at some grade levels, history and science. The programmed instruction materials which are used are assembled into an orderly sequential system. An individual trainee may be placed at any skill

level; he may choose materials which appeal to his interests, and he may progress at his own pace.

The strength of this multiple-use program is its potential for wide dissemination. In North Carolina it is used by nearly 1,000 institutions including four businesses. In Ohio it exists in one public school in each major city. One theoretical weakness of the centrally developed program is the propensity of teaching staff not to supply the central development source with feedback -- either qualitative or quantitative--on the program's success or weakness: and, in turn, the liklihood that the central office will not test these criticisms in any systematic way. The result is likely to be an amorphous program formed on the basis of untried, anecdotal information that has no clear justification.

X. FUNDING METHODS AND COSTS

A. FUNDING

The programs we visited exemplify five funding methods, and a sixth is under consideration. Listed here are brief descriptors of the six methods; the last is the one not yet in use.

- Industry Supported
- R & D contracts to program developers
- Grants or contracts to program operators
- A renewing annual budget item of the local educational agency
- Subcontract from a government contractor
- Student grants

1. Industry Supported. Both Eastman Kodak and the Training-Orientation-Placement Program in Richland, Washington fund the courses from their own operating or training budgets.

2. R & D Contracts. An early and unique example of this was the Board for Fundamental Education. Chartered by Congress in 1957, it was funded to develop educational materials for low-income, undereducated, black adults. After the early program development, BFE began to sell its programs in order to become a self-supporting, non-profit firm. Three projects included in the field visits which are funded by Research and Demonstration Contracts are the Skill Advancement, Inc. and Project BOLT, both in New York City, and Leo Kramer Inc. in Columbus. The first two programs have received special grants, one from OE, the other from the Department of Labor, to develop an ESL program for low-income Puerto Ricans. Both projects, having been initiated two years ago, have developed programs and run them in hospitals, unions and industries in short term cycles at no cost to the employers for the past year. When their

grants expire, the projects are expected to sell the programs or staff services in order to support themselves.

The third program funded in this way involves Leo Kramer, Inc. and the Columbus Board of Education in cooperation with the Laborer's Union Local #423. The program is funded by a demonstration grant from the Office of Education. As explained in the section, Program Organization, Leo Kramer operates the program which has two primary objectives: development of materials related to the laborer's work and institutionalizing the ABE program in the union.

3. Grants or Contracts to Program Operators. This is a very frequent form of funding; it includes the JOBS contracts, MDTA grants and OE or DOL special project grants. The projects visited which belong in this category include New York Telephone, Republic Steel, NARTRANS, the Columbus Laborers' Union, the University of Arkansas, Project GO in Washington, D.C., the Cooperative League of the U.S., the Training and Technology Project at Oak Ridge, the TOPP program in Richland, Washington, Project BOLT in New York City, and the Rutgers program in New Jersey. This type is characterized in two ways. The contracts or grants are short term, lasting from 12 to 18 months. Even though some projects are expected to continue for three years, they are funded a year at a time. When expenses are less than the grant or contract, the funds are carried forward and written into the second year contract or grant. The second feature common to the programs is the coverage. Very rarely are all expenses covered. Most projects are expected to share expenses as, for example, by providing facilities or services in kind. Although this funding method protects the government, to some extent, by including only those willing to commit their resources and those willing to renegotiate every twelve or eighteen months, it severely inhibits long range planning and proper program development.

4. A Recurring Annual Budget Item. In the New Jersey programs, brokered by Rutgers University (the state university), the local school district

supports the adult basic education programs for the employed workers. In Elizabeth, for example, an ABE program has been budgeted annually since 1964. Knowing that the programs will be funded each year, management is able to plan for and make appropriate, if not dramatic, modifications in the program annually. The literature describes this practice in other states and, in fact, this practice or a variation of it may be quite common. Public school sponsorship may be inhibiting or disadvantageous, however, to those students who associate their own earlier academic failures with a public school. It is the advantage of ensuring continuity of program which encourages systematic planning and program development.

5. Subcontracts from a Government Funded Program. Although not as common a practice as the direct contracting with program operators, this method seems quite usual. At Chandler, Arizona, for example, the General Learning Corporation is contracted by a consortium of JOBS contractors to conduct the adult basic education classes. General Learning Corp. has specialized in developing ABE for low income groups and provides superior capability and saves the JOBS contractors developmental costs.

A similar situation exists in Los Angeles. The Office of Industry Sponsored Programs of the Los Angeles City Unified School District conducts ABE classes within factories and firms in the city. Nearly all of the Office's jobs result from subcontracts with JOBS contractors. As a subcontractor, the L.A. schools provide a training course and state certified teachers who have received additional certification in adult education, all subject to the approval of the buyer. This method offers the advantage of financial economy and high quality instructional staff.

6. Student Grants. A method being considered for use in ABE programs is that of providing grants or vouchers to students to be used at selected schools. The method is as yet untested in any ABE program, and, therefore, its advantages are still theoretical. In theory, it has the advantage of protecting

the learner's freedom of choice by allowing him to determine which school, public or private, he wishes to attend. He is given a list from which to choose--a list prepared by a yet to be established agency. The list is to include all public, private and parochial institutions considered acceptable. The method, thus, has another theoretical advantage--that of encouraging freely competing enterprises and consequently causing improvements in the quality of the product.

B. ABE PROGRAM COSTS

Fruitful figures for comparing or analyzing the costs of training are the cost per trainee and the cost per hour of instruction. To calculate these figures three basic data must be known: Trainee enrollment, the total budget, and the number of hours of instruction. For the ABE programs visited on-site, information on the total budget was usually available, but reliable data on trainee enrollments and hours of instruction were rarely found. For this reason the cost figures presented here are rough approximations.

To determine the sum of money spent on each trainee for ABE instruction it is necessary to divide the total budget by the number of students in the program. To get an accurate indication, weighting should be given to the number of trainees enrolled, completed, and separated from the program, but since not all of these figures are regularly available at the programs visited, the number of enrollments alone was used as the divisor for calculating the cost per trainee.

The cost per hour of instruction is calculated by dividing the number of hours of instruction into the amount of money spent for each enrollee. Complete data on the number of hours each trainee spends in ABE training were seldom readily available. When the actual hours of instruction were not known, the estimated or ideal number of hours, as indicated by ABE Project Staff in written information, was used.

The data from which the cost figures are calculated were not available, or too fragmentary to be used, for the following ABE Projects: TAT Oak Ridge, Project BOLT, Inc., Laborers' Union Local #423, NARTRANS, Riegel Paper Company, Republic Steel, Rutgers, Eastman Kodak Company, the AEC plant in Washington and Project GO in Washington, D.C. Data for determining costs of the University of Arkansas program was derived from G.E. TEMPO'S Trip Reports for Seven Special Projects in Adult Basic Education. Data on the remaining five were gathered from published and unpublished materials written by the personnel of those programs visited and are summarized, by project, below.

During the year 1969-1970, the Los Angeles Schools had 754 ABE enrollments and a total budget of $248,575. The cost per enrollee was $378.00. Most of their business resulted from sub-contracts with client companies which received Manpower Administration Contracts. They also had a smaller number of contracts with private companies or organizations which paid for ABE training for employees with their own money. The average number of hours of instruction for all of the programs they conducted was 200, or slightly over the 160 hours maximum ABE specified in MA guidelines. The fact that most of the projects were MA-funded may explain why the cost per instructional hour was relatively low--$1.89. (The MA guidelines specify a maximum allowable expenditure of $2.00 per instructional hour.)

For fiscal year 1969 Skill Advancement, Inc., in New York City had 235 enrollments and a total budget of $167,915. The cost per enrollee was $702.00. With an average of 120 hours of instruction, the cost per instructional hour was $5.85. This cost per hour of instruction is the highest of the five calculated here and is larger than both of the two programs with fewer enrollments.

In 1969-1970 the University of Arkansas enrolled 600 ABE trainees at 13 locations with a total budget of $217,298. The cost per trainee for training was $357.00. With an average of 150 hours of instruction, the cost per hour was $2.38. It should be noted that, although only approximately four of those 13 locations

involved ABE that is directly job-related according to the definition pursued in this analysis, the enrollment figure is useful for costing purposes.

For the 1970 year, New York Bell Telephone reported that it enrolled 144 women in MA-funded ABE training to become operators. Although the total budget was not indicated, Bell Telephone calculated the cost per trainee of this training to be $742.00. For an average of 160 hours of instruction, the cost per hour was $4.63.

The Midwest Coop's contractual estimates are used here to provide an example of ABE costing on the part of an organization presently offering ABE training. They agreed to train 150 enrollees with a total budget of $93,632, which would make their cost per trainee $624.21. Using their figure of 150 hours of instruction the cost per instructional hour would be $4.16.

These data suggest that costs are cut in half when the enrollment is 600 or more. It appears that the two larger programs are able to spread their administrative and overhead costs and thus operate more efficiently than programs with enrollments near 200. For this reason and because of the fact that millions of Americans need ABE programs, the practice of operating programs with sizable yearly enrollments is recommended.

According to available statistics, enrollments of 1000 or more students a year would not be unreasonable goals in cities or regions as small as 200,000. The President's Advisory Committee on Adult Education estimates that 20 million American adults need adult basic education.[1] For some of them, about 3 million,

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[1]"Strengthening the Foundation of Our Democratic Society," Second Annual Report of the National Advisory Committee on Adult Basic Education; August, 1969, pg. 4.

it is estimated that ABE is necessary to overcome illiteracy.[1] For others it will provide security in a job or the means to a promotion. Thus the number of adults needing ABE in a particular locale will vary around an average of 10% of the population of the area. Larger percentages can be expected in densely populated urban areas or in remote rural regions, and smaller percentages in suburban communities.

From these figures, it follows that in a population of 200,000, about 20,000 adults, dispersed in varying concentrations throughout the region, should undertake some basic education. Even if only half of the 20,000 are in genuine need of job-related ABE in order to improve their employability, a ten-year program aimed at handling 1,000 students a year would be required just to catch up with today's needs.

It is pertinent to note that Manpower Administration (MA) guidelines limit "Job-related Education" to a maximum of 160 hours. Expenditures are limited to $2.00 per hour of instruction, and the number of trainees admitted into the program is not to exceed 25% of the company's full-time regular work force. The guidelines seem to be tied most directly to costs of instruction as embodied in materials and teachers' salaries. No provision is made for adjusting the maximum allowable expenditure per instructional hour according to the number of trainees in the program, so that varying needs for administrative and developmental overhead can be accommodated.

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[1] Digest of Educational Statistics, 1967 edition, Simon, Kenneth A. and Grant, W. Vance, eds, U.S. Government Printing Office; Washington, 1967, pg. 1.

XI. CRITICAL OPERATING ISSUES AND PROBLEMS

A number of core issues and problems are so important that they occur in many or perhaps even in all job-related ABE programs. The present chapter discusses these issues and suggests methods for handling them.

A. STUDENT HETEROGENEITY

There are two basic methods for handling diverse student needs and aptitudes--grouping and individualization. Grouping of similar students, if it could be carried out to the ultimate degree, would eliminate heterogeneity within groups. And individualization would tailor learning activities exactly to each student's own needs, abilities, and circumstances. In practice, neither ideal can be attained. Even children of the same age and from the same neighborhood are too diverse to permit heterogeneity to be eliminated by grouping and sub-grouping. Adults are even more diverse in age, experience, problems, and needs. And extreme individualization--tailoring of curricula, procedures, materials, and schedules to fit each individual exactly--is too expensive to be used for large numbers of people. Besides, no one knows in actual practice how to do it. In addition, it appears that individuals need to learn in some kind of social context, and that diversity can help as well as hinder learning. Individually Prescribed Instruction, Computer-Assisted Instruction, and other attempts to individualize are in their costly infancy, and may never grow up to be as useful as hoped.

Job-related ABE student diversity will be very great, and usually only very gross groupings are possible (e.g., English as a Second Language; grades 1-3, 4-6, 7-9; English, arithmetic). Assuming that one teacher will have to handle from 10-20 students, ways must be found to permit students to learn to a greater or lesser extent independently of each other. Emphasis must be on the teacher as an instructional manager, with a repertory of individualizable instructional and testing materials. Each teacher should

have a paraprofessional aide, and it is also highly desirable for students to help each other, either informally or through somewhat formalized tutoring procedures.

In this situation, class groups should have as little as possible of the "lock-step" aspect about them. Class members should join and leave whenever they, as individuals, are ready. Newer students can be helped by students who have been in the class a while--indicating to the "older" student that he <u>has</u> succeeded, and to the newer student that he <u>can</u> succeed. An atmosphere of mutual acceptance of persons, as well as support for educational goals, should be promoted.

B. CONFLICTS WITH STUDENTS' ADULT CIRCUMSTANCES AND PERCEPTIONS

As a rule, adults don't like to be treated like children, but here too people are diverse. Few adults wish to be mature and non-childlike at absolutely all times. For beginning English as a Second Language (ESL) for adult immigrants, it may be particularly true that procedures somewhat imitative of traditional elementary schools can be entirely appropriate and successful. But some authorities suggest that this ESL approach may also reinforce mispronunciations and fractured syntax. Generally, it seems reasonably clear that ABE should

- treat students like the adults they actually are;
- use adult-oriented materials;
- appear to students and their associates to be worthy of adult involvement;
- as much as possible, be <u>enjoyable</u> for adults.

Some ABE programs are conducted in a secretive manner, so that the students' associates won't know that they are engaged in elementary studies. This approach may help somewhat, but seems rather hard to carry out with success.

It is also negativistic, in that it may be construed as an admission that the program has something wrong with it. A better approach might be to emphasize the educational potentials represented by starting with ABE. An appealing notion is college sponsorship of ABE with an eventual tie-in to an actual college curriculum. In this way the ABE students can appear to themselves and to others as starting to college. Or ABE can be a component in a foreman training or technician training course, which emphasizes the job advancement aspect.

C. STUDENT-STAFF-EMPLOYER GOAL DISCREPANCIES

An employer's goals may emphasize improved employee performance, reduction of turnover, reduction of recruiting costs, "good-guy" image-building, and getting federal money to help with training needed anyway. The student's goals may include higher status, higher wages, job security, self-enhancement, recreation, helping his children in school, and improving his life skills. ABE staff goals may include avoiding tedious or difficult situations, keeping the program in existence, doing a better educational job, getting promoted, being helpful, and earning money in a spare-time job. In many cases, these goals may support each other reasonably well. But one conflict possibility is quite real--that ABE may enable employees to get new jobs elsewhere and be lost to their present employers. Another possible conflict is with the teacher who wants to teach parts of speech (or "the discipline" or "the fundamentals") instead of what would be of most benefit to the student and the employer.

Solutions here are to get the employer to take the risk of losing employees in return for receiving other benefits; or to recognize that he's going to lose them anyway and that he needs to restructure his positions and wages to make them more attractive; and to supervise and train teachers so that they avoid inappropriate academic goals.

D. SHORTAGES OF TIME AND MONEY

In some cases more time or more money may really be required, but frequently what is needed is rather to use available time and money more effectively. This is a "core issue" in that it's much talked about and that there's frequently a presumption that major problems can be solved by providing more time or money or both. But our analyses indicate that other problems are more important, in the sense that unless these other problems are attended to, simply providing more time and money won't do too much more good.

E. TRANSITION TO SKILLS TRAINING OR JOB PLACEMENT OR ADVANCEMENT

Available figures (see Chapter VII above) indicate that a single ABE program by itself usually accomplishes very little. In most programs the advances which occur in reading, writing, and arithmetic are somewhere around one grade level, or occasionally two grades. Advances in self-confidence may or may not be more substantial--no figures are available. But new self-confidence, even if present, is probably fragile.

So the ABE graduate is unlikely to be in a markedly different employability situation than faced him before ABE. (Note the significance for ABE program goal definition--that program goal statements should refer to making a small start in an important direction, and that programs should be evaluated not so much by the amount of the start as by the realistically usable momentum imparted in the right direction and by their working linkages with post-ABE activities.) Post-ABE help is required to capitalize on these small but important gains. Either the ABE program should have skills-training and job placement or advancement built into it, or (more to the point) ABE should be built into a total employment or advancement program. If the ABE is realistically related to what is going to happen next in work or training, then its results will be reinforced and expanded upon naturally by the new work or training situation.

Evaluation of a well-organized total job-related ABE program will result in recommendations for improvements, perhaps to include additional time with ABE content at later dates (say 3 months, 6 months, or a year after "graduation"). These later sessions might be even more thoroughly integrated with job training than the original sessions were.

Here we are pointing out the importance of a context for ABE which will link it with skills training and work. This context can hardly be supplied by ABE itself, but it could be supplied by skills training or by work or by some combination. Many unions and employers have ongoing training programs, including classroom work and OJT, to which ABE could reasonably be adapted and which could supply this ongoing post-ABE support. Also, many schools (adult vocational schools, community colleges, and technical institutes) could (if closely enough related to employment situations) provide support. Any of these types of post-ABE support could also be made a part of the "selling-package" for ABE to increase its motivational attractiveness to students.

ABE is only a beginning, and much more beyond ABE is needed. But for many ABE students, a long-range view is entirely uncustomary. The ABE program should be set up so that it <u>can</u> lead on and on, but it may be inadvisable to burden the student with too much thinking about the future. For motivation and symbolically, glimpses of a distant future may help. But detailed learning activities should usually be based on more immediate student interests.

F. MEASUREMENT AND FEEDBACK OF PROGRAM CONSEQUENCES

A number of tests exist which are used before, during, and after ABE programs. However, there is no general agreement on the desirability of using these tests. In some programs, formal pre-tests are viewed as counter-productive tending to demotivate the student even before he gets started. In other cases,

available standard tests don't seem closely enough related to program goals. In still other cases, tests are built into instructional procedures on a more or less continuing basis, and instructional units are assigned on the basis of test results.

Tests of student performance are therefore not always available, even as partial indicators of student and program success. How then are programs and their detailed features to be evaluated and improved? The general answer is that (1) program goals (in addition to student goals) must be clarified and stated in some type of behavioral or operational fashion, so that meaningful criteria of program accomplishment can be brought to bear; (2) sufficient attention needs to be paid to the degree to which the program meets these goals; (3) hypotheses need to be devised, chosen, and acted upon to correct program deficiencies; and (4) the whole process needs to be continually repeated.

Although the desirability of program evaluation and improvement may seem obvious, there are very few job-related ABE programs which try to carry out these four steps in even the simplest fashion. Most educational programs, including ABE, tend to result from a combination of intuition, accident, and tradition, with very little conscious attempt to ask about goals and their attainment. And when questions <u>are</u> asked consciously, there is a tendency to accept rather superficial answers--the easiest ones to get at, or the most agreeable to contemplate, not necessarily the most important ones.

Suppose that an ABE program adopts as its chief goal the provision of whatever skills and attitudes (apart from actual vocational skills) may be necessary to secure employment with a reasonably assured annual income of $5200 (the equivalent of $2.50 an hour if fully employed). Then program evaluation requires employment follow-up records of students (at least on a sampling basis) for several years. It also requires inquiry into the detailed reasons for success and failure of alumni on the job and into the contribution (if

any) made by the ABE program to success or failure, so that needed adjustments can be made. (Of course, vocational skill training may need improvement, too.) Now which ABE programs actually do this? Few, if any. Why don't they? Because they aren't that clear about their goals, and because follow-up is difficult. It's easier to assume that the goals are reading and arithmetic, and that if the student learns to do whatever is offered by the program, then the program is successful.

In some cases, simple and easily visible criteria of program success can be stated. These are situations where artificial barriers to employment have been erected, like the GED or passing a test for admission to apprenticeship or to civil service employment or whatever. The educational program can then concentrate entirely on coaching its students for a particular test and can measure its success by how long it takes to get a designated number of students up to passing ability.

Few current ABE programs have single goals, or even well-defined primary goals. Usually many goals are stated (as if the hope were that if enough targets were available, the chance of hitting something would become nearly certain). In this type of situation, program evaluation and improvement is bound to be haphazard. If a program does have many goals, their priorities need to be explicitly established, and ways of assessing their achievement need to be explicitly sought, used, and heeded.

Program evaluation should be internal to the program as well as external. Evaluation should be built in as an essential program function, not assigned only to an outside evaluator. Independent outside evaluation should be limited, and used for verification of internal evaluations, for research, and for policy level planning.

G. STUDENT MOTIVATION

Motivators and demotivators are diverse. Generally, the more immediate the rewards are, the better. This applies both to recruiting and to instruction--getting students into the program, and facilitating their learning. Abstract and future rewards are of little value. Penalties should not be included among instructional methods, since they may well reduce the student's already tenuous attraction to the program to a level of zero or below. The whole learning situation should be as supportive as possible, with emphasis on positive reinforcement methodologies.

Recruiting to ABE in isolation from skills training and employment or advancement opportunities is difficult, especially for the hard core who need it most. Stipends for ABE alone (with the notion that after ABE the student can seek and retain employment on his own) can accomplish very little, either to get people into ABE or to encourage learning. But when ABE is part of a program which credibly promises skills training and attractive job placement, then stipends may not be needed (though supporting services or carfare may be). Vigorous outreach and successful job placement are both highly desirable, and often skill training is also required (or at least provision for OJT).

For outreach to use the concept of immediate reward, the ABE situation (or better, the total program in which it is embedded) must have some direct appeal--some worthy status of its own, as well as offering future opportunities. The personality of the recruiter is very important, along with the image he creates of what human relations will be like in the program he's promoting. Program reputation and community support are also critical.

H. STAFF STATUS AND MOTIVATION

For a teacher, counselor, or administrator, there are few established career opportunities in ABE. Most ABE positions are on a part-time or additional duty basis, and they are often uncertain. Whether and when and where the

ABE teacher will be needed is dependent on vagaries of funding and enrollment, and may not be settled until the last moment. The teacher who then is hired may be assigned to teach in an unattractive setting, at inconvenient hours, with sporadically attending students, and with little supervision or peer contact to provide a feeling of social support. And the pay may range from poor to medium, being hardly ever the equivalent of a regular teacher's pay and benefits.

Given these conditions, it follows naturally enough that most ABE personnel have comparatively little specialized preparation and experience, that they are in the field more by accident than by choice and training, and that they do not tend to think of ABE as a career. ABE program designers could respond to this situation in the following ways--

- Assume that teachers and other staff members will have a comparatively low experience level, and design program procedures and materials accordingly. This approach may also include provision for staff training before or during the program.

- Increase program attractiveness to staff members (pay, job stability, working conditions, etc.) and intensify recruiting to be able to select only highly qualified existing teachers, counselors, and administrators.

- Embark on a long-range program to build up attractive career opportunities; recruit and train teachers and other ABE staff members for positions of increasing difficulty in a career ladder; and design ABE programs coordinately to use staff members of varying degrees of experience and training.

I. COMPLEXITY OF PROGRAM CONTROL AND SUPPORT

Almost all job-related ABE programs depend for their existence on support from several sources. Funds may be a mixture of contributions from the local

school district, from an employer, and from one or more agencies of the federal government. Personnel, services, and facilities may be contributed by a union, by state agencies, and by several community organizations. And advertising and advice may be contributed by still other organizations and individuals. Complexity such as this can be a source of program strength, but at least two problems are involved. First, it may be very difficult or impossible to establish and operate the program under reasonably stable and unified overall management, as necessary for systematic development and improvement. And second, a disproportionate effort may be required to keep all factions happy with the program, satisfied with their representatives and their role, and willing to play their agreed upon parts effectively.

For a solution to these problems, it is highly desirable to have a single program director whose full-time responsibility is to the program. He may be an employee of one of the supporting organizations, but his job should be defined as including everything needed to make the program come into existence, stay in existence, and meet its goals with increasing effectiveness from year to year. He must have people, dollars, and other resources assigned to him, preferably on the basis of a contractual commitment or some approximation thereto. In some cases, he may have to spend a very large portion of his time negotiating and renegotiating formal and informal agreements with supporting organizations. If so, this should be explicitly recognized, and he should delegate management of program development, evaluation, and day-to-day operations to other staff members.

The overriding issue here is that of the program's existence as a continuing and manageable entity. This is a prime issue, for unless it is solved, nothing else is likely to be. The program's overall director must therefore be able to give as much time and effort as is needed for bringing about program stability, continuity, and manageability.

For some ABE programs, support is sought through an explicit marketing activity. For example, the program may seek an employer or a consortium of employers to pay for ABE instruction to its employees. The employer in turn may or may not be reimbursed by government funds. In the case of this type of program, it would be desirable to have a director for marketing concerned with fund-raising for operations. These funds could reasonably include indirect charges to support program management, development, and evaluation. However, it seems unlikely that very many (if indeed any) ABE programs of this sort can survive on sales alone. Subsidies from public funds are probably required to cover indirect (overhead) costs, though perhaps not direct operating costs.

Some components of ABE programs have been and will continue to be developed by private enterprise on a risk basis. Funds put forward by publishers to develop text book series, for example, will be recovered with added profit if and when sufficient sales take place. ABE programs could well cooperate with publishers to develop and regularly improve instructional materials of all sorts. Various modes of sharing responsibilities, risks, and gains could be appropriately worked out.

J. CRITICAL PRIORITIES

Any successful job-related ABE program will be a combination of features more or less necessary for the program's proper operation. The following brief questions and answers suggest some of the priorities involved.

- How critical are recruiting and outreach?

  They are very critical. Recruiting for job-related ABE is too often treated casually. Explicit recruiting goals need to be stated in relation to particular target populations to ensure adequate attention to potential students most in need of ABE, including both hard core unemployed and the working poor. Then resources need to be assigned so that recruiting goals can be reached.

- How critical is it to develop improved instructional materials for job-related ABE?

  At the present time, development of improved instructional materials should not have an extremely high priority. A number of reasonably good texts are now available, and good teachers can improvise or find useful supplementary materials.

- How critical are classroom facilities?

  Elaborate facilities are unnecessary, but facilities should be adequate for learning activities. They should also support the program image of being capable of successfully responding to student needs.

- How critical is counseling?

  Rough and ready educational placement may be as useful as elaborate testing, except for cases needing sophisticated diagnosis of learning disabilities. But counseling as a part of outreach and retention is extremely important in many programs. It is not needed so much where students are self-motivated.

- How critical is overall management?

  Overall program management is extremely critical and much neglected. It is necessary to secure effective (stable, focussed, properly operating):

  - funding
  - teaching
  - recruiting
  - support
  - adaptation of means to goals
  - clarification of project goals
  - and so on--whatever is needed in special circumstances to make the program go from day to day and to survive and improve over the long run.

- How critical is money?

  In many cases, the problems with money are not its amount but the erratic way in which it becomes available, along with mismatches between the amount available and announced goals and schedules (so that too much success is needed too quickly).

- How critical are an on-the-job setting and the general relationship of ABE to a wider universe of work and training?

  There is no indication that the place, as such, makes a single kind of difference. A job location for ABE is convenient for employee-students, but some people like to get away from the work site, expecially if the learning site has some status or agreeableness (like "college" or an impressive adult education center). A union hall may also be convenient. But facilities at the job location may be inadequate for instructional purposes. And unless the employee population is very large, the basis for a program big enough to be efficiently self-contained is unlikely to exist.

The psychological setting of ABE is doubtless very important, although we don't know too much about how this works. ABE must psychologically fit the students' present conditions and aspirations. It must be enjoyable for its own sake (social or interpersonal rewards), or there must be some other immediate pay-off like money or a direct tie-in with some other desired status or activity (job or training program), or it must promise some future desired goal like money, status, or advancement. Furthermore, the ABE activities must be meaningful to the student within his present or foreseeable sphere of interest (foreseeable by him). The job (now or known) is possibly interesting, though it also may be disliked. Sports, romance, comedy, or adventure may be more interesting and meaningful. Consumer problems may be meaningful, and life problems can certainly be meaningfully presented.

- How critical is pay to students (including stipends, released time, etc.)?

  This can be important, depending on student circumstances and motivation. However, many programs now exist where there is no money compensation to students for their time and trouble. But for some groups, some kind of support would be either necessary or highly desirable to reach sufficient numbers of students.

On the whole, the highest priority problems for job related ABE programs today are management inadequacies and erratic and uncertain funding. If these are properly taken care of, everything else can fall into place, since management's role is here defined as assuring adequate attention to all other program functions including outreach, instruction, placement, evaluation, staffing and program improvement. In a sense, management alone can be the key to solving funding problems too, since good management will recognize the importance of securing funding and will take steps to ensure it. But to judge

from the programs we visited and are aware of, funding problems take an inordinate amount of management's time and are still not satisfactorily solved. So reasonably good management alone is usually not sufficient. Perhaps exceptionally good management, combining a truly outstanding group of administrators and fund raisers, would alone suffice to take care of all other problems. But such a group is unlikely to be available to very many separately existing ABE programs.

XII. SOME SUPPLEMENTARY CONSIDERATIONS

This chapter contains remarks on several miscellaneous topics, supplementing discussions elsewhere in this report. The first section, on space and equipment for job-related ABE, supplies additional details related to the illustrative program model of Volume I, and assumes as given the schedule and procedures of that particular model. The next section, on funding sources, discusses possibilities applicable to a variety of model programs, either individual or federated. And the final sections discuss needs and methods for research and dissemination.

A. ILLUSTRATIVE EQUIPMENT AND FACILITIES

Space and furniture requirements for instructional activities as described in the illustrative model of Volume I are very different from what is found in conventional schools. It is unlikely that classrooms of the standard sort will be needed, with 15 student chairs facing the teacher's desk, and with blackboard-lined walls. Requirements suggested by the activities and schedule of the illustrative model are of this sort:

- A library of instructional materials, including optional readings, from which students can select items at will.

- Shelf or storage space for each student to leave his books and papers which he's not using at the moment.

- Individual and group working spaces. Small tables for individuals may be preferable to carrels, since tables can also be used by two students working together and can be joined together for small group conferences. One large space needs to be available for multi-class activities.

- Distraction Control. This should not be overemphasized, since the model emphasizes human interactions and the social context of all activities. Individual students should not have closed study rooms of their own, nor should the teacher or aide be separated from the students. The concept of a community of learners should prevail. Quiet and noisy activities will be separated from each other to some extent by the day's schedule. During individual work periods, most talk will be between teacher or aide and one student at a time in individual conferences. This could be in a corner of the room, somewhat separated from students' working tables. During tutoring periods, pairs of students will be working together and need not disturb adjacent pairs unduly. Each simulation session will probably require an entire room to itself. If the simulation is appropriate for only some of the students in the class, the others may be scheduled to join another class's group activities to work independently in some other available room.

- Office space for non-instructional activities. Counselors should have spaces available for private conferences with students. Other program staff members (assigned to management, development, and evaluation) will need desks and so forth.

- A lounge and possibly a lunch room; lavatories, store rooms, etc.

- Equipment needs will include one blackboard for each room (mostly for simulations and other group activities, not for tutoring or for teacher conferences); any instructional devices which are found to be genuinely cost-effective supplements to work books and texts (possible examples might be typewriters, adding machines, cassette recorders and listening sets, slide and film projectors, or video tape recorders); typewriters, a duplicator, and telephones for staff members; comfortable furniture for a student-staff common-room or lounge.

B. SOURCES FOR PROGRAM FUNDS

The minimum conditions for improving an inadequately funded ABE program are two--a qualified program director, and freedom for him to reallocate program resources from low priority to high priority matters. It may be that the inadequate funding is only apparent--that the total amount of money available could be sufficient, but that it is allocated inefficiently to high-cost low-benefit program components or features; or the program may be too small, requiring consolidation with other programs. Reallocation of funds or alliance with other programs could then theoretically make possible the beginning of an effort to develop an improved program. But of course there are obvious dangers involved in drastic fund reallocations and in reorganizations, since many expectations will be disappointed and vested interests will be challenged. Also, the ongoing program is likely to appear as backsliding or perhaps even as temporarily stopping. Program management will need all the support it can get during what may well be a difficult period of transition. Internal and external allies must be identified and their commitments must be secured in advance. Cooperation of funding authorities, community representatives, interacting organizations, and key staff members will be particularly important.

If the program's available funds are so severely inadequate that consolidation, reallocation, or focusing of resources will still provide an insufficient base for marked improvement, a possible solution will be to use substantial parts of whatever funds are available for the explicit purpose of fund-raising. This may well require temporarily abandoning any pretense of program operation (and perhaps program development too), and acquiring specialized fund-raising talents and services, thereby increasing the vulnerability of the program to attack. However, with firmly established alliances, the fund-raising effort will be able to proceed.

Possible sources of funding for job-related ABE include:

- Government
- Schools and Colleges
- Community organizations
- Employers
- Unions
- Student tuition and fees

Of these possibilities, student tuition and fees can be immediately eliminated as a significant funding source for ABE. When the main purpose of ABE is to assist people without decent incomes to improve their situations, it is quite inappropriate to consider asking them for anything more than token cash contributions, if even that much. A token fee (or a token deferred fee) might possibly work in some cases as a pledge of the student's commitment to the program and to reinforce his motivation. But in most cases, even token fees will be just one more obstacle to program entry for those who need ABE the most.

The student's immediate contributions should usually be limited to his time, his unpaid or partly unpaid services as a tutor, and the incidental expenses of his attendance. His deferred contributions should be limited to the taxes he will be paying on his improved post-program income, possible service as an adviser or tutor after he leaves the program, and other miscellaneous post-program contributions to society. The total of these can be very large. The Oak Ridge Training and Technology program, for example, calculates that increased income taxes collected from their graduates in just a few years will more than equal program costs.[1] Even the student's contribution of his own

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[1] For a recent discussion of some difficulties involved in cost and benefit calculations of this sort, see M. R. Levin and J. S. Slavet, Continuing Education, Lexington: D. C. Heath, 1970.

time for ABE may be a serious matter to him, since ABE schedules may conflict with immediate (even though poverty-level or marginal) employment opportunities.

Unions, employers, and community organizations of different sorts may all be partial sources of ABE program funding, but very few of them would be able or willing to provide complete financial support for a program of the magnitude outlined for our model. However, when employers already conduct internal specialized training programs, they may see both the desirability and reasonableness of supporting ABE for employees and potential employees through an externally managed program. The external program may serve a consortium of employers on some long-term contract basis, or the program may derive its income from continuing selling efforts.

A funding possibility worth exploring is the jointly managed union-employer education fund. The Columbus Laborers Union provides an example of plans to use portions of such a fund toward supporting ABE for union members. In that particular case, union member students are too few in number to justify a model program, suggesting the desirability of coalition with other programs to expand student numbers as well as to increase potential funding sources.

Many school and college budgets provide funds for various kinds of adult education programs. With the availability of federal funds for the purpose, many offer ABE. At the present time, however, there are few cases where local school funds, independent of federal funds, support ABE to any significant extent. This situation will probably continue as long as categorical federal funds are available. To be sure, ABE is a local problem, and some share of the need for it must be attributed to the fact that local schools have not been able to accomplish their goals for all their students. So it would not be unreasonable for local continuing education or community college funds to be spent for ABE.

Still, it would be most unlikely for a local school district or a community college to support by itself the development of a complete ABE program following our proposed guidelines. ABE generally ranks too low in priority in the severe local competition for education funds, which are always insufficient to meet all desirable needs. ABE has little prestige in comparison with technical and higher education for adults; the people who need it are not often effectively represented by political pressure groups; and little exists in the way of an ABE "professional establishment". Besides, if a program based on a new model is to be developed, extra money will be required and program pay-off will be deferred. So local school fund contributions to ABE will almost certainly continue to be quite limited, perhaps to partial support of ongoing operations after major development costs have been paid out of other funds.

Most of the foregoing types of organization (schools, colleges, community agencies, employer and union consortia) are potential sources of limited funding which can have far-reaching influence, especially when combined with the prestige and whole-hearted backing of the organization as program sponsor. This funding strategy provides a salary and administrative support to a program director, whose job is then specifically to put a program together with money and other contributions from wherever he can get them.

In all these cases, program identity, integrity, and independence must be preserved. From the point of view of an ideal ABE program, it is worse than useless to raise money whose allocation is restricted to non-program or counter-program purposes.

The same principle applies to applications for state and federal funds for an ABE program. There are many--perhaps too many--possible ways to obtain government money for job-related ABE. The methods defy complete description and require much effort, experience, and luck to be successfully traversed. An

unusally ingenious and persistent fund-raiser will get MDTA, ABE, JOBS, WIN, CAP, and other funds all put together into a single more or less fragile package. There will then be more or less accidental linkages between the funds and the purposes of the program, increasing the likelihood of problems with funding stability.

Federal funds for experimental or demonstration programs might seem to be more organically linkable to the development of an exemplary job-related ABE program. However, there are two problems here--first, that demonstration projects are usually funded for no more than three years; and second, that a job-related ABE program following the guidelines proposed in this report could not be a demonstration model, at least not in the sense that it could be literally replicable or transferable from one location to many others. If our guidelines are successfully adapted to one location, then what is demonstrated is that local management was able to solve local problems and develop details to the point of cost-effective operation. This may be a highly significant demonstration, but the attempt to do this is not ordinarily viewed with much enthusiasm by demonstration grant givers. This is because they tend to favor specific innovations for demonstration rather than comprehensive program development, on the ground (taken by the authors of this report to be fallacious) that specific innovations have a vitality and transferability of their own in some degree of independence of programmatic context and environment.

C. RESEARCH

In our initial thinking, one of the Indicators of Project Focus (see Figure 1) that would qualify a program for inclusion as a major model was "an explicit theoretical basis of some scope." In our search for candidate programs and in our subsequent field visits, we found very little evidence that theory underlies practice. There are few obvious links between actual practice in the programs we read about and visited, on the one hand, and what is or may be known about learning theory, about physiological and psychological obstacles to learning by children or adults, and about diagnostic tools and techniques.

There seem to be two reasons for this failure of theory to support practice: the way research is done and reported, and the nature of the research itself.

How research is done. The research that might contribute to a body of theory about adult basic education is carried on, reported and ultimately filed away in an assortment of communities (academic, professional, commercial) and places. Access to what information there is is made difficult for those who might use it by lack of focus on employment or job-relatedness. And the incentives to undertake a systematic review of what has been done to find what might be used are not very compelling for the individual ABE program operator, primarily because the bridge from research and experiment to operations has never been built.

The main complaint of the program operator is that research is done in comparative isolation from the realities of students and job markets, and that findings have, therefore, little relevance to the problems he faces. This is no doubt a real argument for many, and a specious if understandable one for others who must decide whether to bone up on the current state of the art or get a broken-down movie projector back into service or secure funding for next year.

The end result is that potentially useful, often expensive research findings remain scattered and don't get applied in any systematic, centrally sponsored or centrally stimulated fashion. And individual program operators don't have the resources or time to dig out information themselves.

What doesn't get researched. The most serious gaps in knowledge about job-related adult basic education have to do with the concept of "job-related". It seems to be taken for granted that education and success in the world of work are linked somehow, and that basic education goes before any other kind, but the relationship of education to getting and keeping a job is neither clear

nor direct. Even in a technologically sophisticated job market, some jobs still exist that pay reasonably well and offer some potential for upward mobility but that do not require their incumbents to be able to read, write, or do simple arithmetic. The number of these jobs is declining, but that fact alone does not suffice to define requirements for job-related ABE. Different jobs require different skills, and there is no "general ABE" which is equally suitable as a preparation for all jobs. It is not adequate for ABE to focus on "education for living", dealing with social and consumer skills and justifying its concern with the Three R's on the purported grounds that no adult can get along in society without them.

ABE may serve a very useful purpose in enabling people to get over irrelevant but real obstacles to employment such as apprenticeship examinations, eighth-grade or GED equivalency certificates, and high school diplomas. However, in relatively recent years increasing numbers of employers, both public and private, have waived some of their unrealistic entry-level educational requirements. This is fine for the job-seekers who might otherwise not be considered, but if these inappropriate standards vanish, what will replace them for ABE program designers and operators to measure their programs against?

Research is needed into what basic education is actually needed, and for what purposes. Then, when these needs are better defined, it becomes possible to ask more meaningfully than now about effective methods and about the costs of applying the methods.

Suggested Areas for Research and Experimentation. What all this leads up to is the identification of some areas for research, experimentation, development and demonstration. Perhaps the highest priority should be assigned to the creation of criteria for measuring client and program accomplishment. Job tenure is only one indicator, and other desirable changes in the client population have to be identified. In the absence of realistic means for assessing

what changes take place in a student's behavior as the result of this participation in a program, that program's designers will have great difficulty setting behavioral goals and measuring progress toward them.

A closely related problem is that of determining the needs of potential students. Really a two-part problem, it involves (1) finding out how many people have what educational deficiencies that can or do keep them marginally employed or unemployed, and (2) defining the relationship between learning and working; that is, finding answers to the question: what does one have to know to be able to learn to do a job?

When more is known than we know now about these questions, research can shift its focus to the invention of ways to remove or get around obstacles to learning. Here, learning theory can make a contribution as can studies of diagnosis and remediation.

D. DISSEMINATION OF PROGRAM AND RESEARCH INFORMATION

Program designers will believe that research and experimentation are relevant to real-world problems if real-world problems stimulated the research in the first place or if findings can be demonstrably applied. But program designers and operators cannot sit back and wait for workable solutions to be delivered to them, ready to be implemented, any more than researchers can expect the program operators to seek out their counsel and immediately see its wisdom.

We propose an interactive information exchange between program operators and a Research and Development center. Information flow should begin in the field. Individual program instructors, counselors, evaluators, developers and managers should be the primary source of information about problems for

which research may provide solutions, and they should be in regular contact with the R & D center. They must also be encouraged (or persuaded or perhaps required) to adopt what is generalizable and adapt what is not from research and development in subject areas they themselves have identified; "not invented here" should never be an acceptable excuse for neglect or re-invention.

At the center, two things need doing:

(1) Current and relevant information about research findings, demonstration project results, and so on has to be rounded up and organized in a fashion that will make it accessible to program developers who can use it directly and to others who might test its applicability.

(2) Research should be sponsored that is related directly (or, if indirectly, then clearly) to the overall purpose of improving the quality and quantity of service delivered to educationally deficient adult job-seekers and job-holders. An integral part of every research project should be a concrete plan for testing its findings in an actual job-related ABE program.

There are a number of ways that the relevance of research to real job-related ABE programs can be demonstrated and made credible, assuming it really is relevant. One is through regular publication of reports on findings that are demonstrably applicable in a diversity of circumstances or to a diversity of clienteles. A vehicle for this kind of dissemination might be a Journal of Current Results in Job-Related Adult Basic Education, sponsored by the central activity mentioned earlier or perhaps by a professional society. It would also serve as a medium for publicizing operational programs that have had success in dealing with particularly significant problems with clients, employers, funding, staff turnover, etc. Finally, a section of the Journal

could be devoted to inquiries from program operators about solutions that might be available or sought for problems they have encountered. If properly done, such a Journal could become required reading for program developers and operators.

As matters now stand, information that might be useful to the designer of a program or to the instructional or counseling staff is fragmented and scattered in an assortment of journals, monographs, libraries, and other publications and repositories both public and private. This makes searching out what is applicable a formidable if not impossible undertaking.

For many dissemination purposes, something more tangible than a journal is required. Two approaches are suggested, both aimed at bringing together the researchers and the operators for their mutual enlightenment. One is the "road show" or travelling seminar, in which people with ideas about concepts, methods or materials that can or should work in an operational setting literally take them to the field and try to explain them and to make them work. Everybody learns from such an experience; program operators learn something doesn't have to be homemade to be good, and researchers learn that their study designs must take account of the real variables (ugly or depressing facilities, inept or bored staff, employer apathy, client hostility) that research doesn't ordinarily concern itself with.

Another approach is the workshop, conducted at suitable intervals and in suitably distributed locations, to facilitate what we consider the essential communications between theory and application. The workshop has the advantage of being "neutral turf", neither in the ivory tower in which research is believed to be performed nor on the firing line where strategy gives way to tactics and to survival. It has the disadvantage of being removed from both, and the difficult part is to design it so that participants take back to their respective worlds an appreciation of the other worlds, and the names and

telephone numbers of people they want to talk with further in a less structured, less public way.

Yet another approach, combining the virtues of both the seminar and the workshop, is the "demonstration facility." For this approach, one or several programs could be designated to serve as test beds for new notions about job-related adult basic education. Even in these demonstration facilities, however, program goals should still be concerned primarily with the employment needs and aspirations of clients. The testing and demonstration of innovations in a real environment should be a byproduct. If complete program development does not maintain precedence over research and demonstration, the risk of insignificant or inapplicable research becomes too great.

E. ORGANIZING RESEARCH AND DISSEMINATION

Beginning from what now exists, a strong start could be made toward constructing and operating a family of job-related ABE projects and programs, including research projects, experiments, demonstrations, operational programs, and communications. We now have:

- The talent to do the needed research that hasn't been done;
- A lot of experience that hasn't been documented but could be;
- Facilities that can be used more or less as they are;
- Communications media of every variety;
- Employers who have or will have vacant jobs to be filled;
- Money for ABE and related programs; and
- Millions of people in need as the incentive.

The next step is to give all this sufficient focus. Leadership is needed to give an impetus to achieving responsible but decentralized management. Just as management is critically important at the individual program level, so is it here--to set priorities, establish schedules and secure resources. A major organizational problem, of course, is posed by the inescapable conflict between localization and consolidation. Localization is needed both to ensure responsiveness to diverse and changing local needs, and to secure vigorous, effective local participation in attempts to meet those needs. Consolidation, on the other hand, offers the advantages of strong, well-supported overhead-type activities, such as program design, research, materials development, dissemination, objective evaluation, technical assistance, and personnel exchange.

At present, needs for job-related ABE are being met in such a fragmentary way that the program momentum generated is insufficient for conversion toward meeting needs on a significantly wider scale. Furthermore, it seems unlikely to us that the creation of one or a small number of exemplary programs, no matter how excellent and how well advertised they might be, could generate the needed momentum. At the other extreme, nationwide consolidation (and strong management) of a vast network of job-related ABE programs adequate for meeting all needs is politically undesirable and highly infeasible. Our recommendation is to seek a middle ground by encouraging and guiding the creation of a large enough number of locally managed exemplary programs (perhaps 50) to have nationwide impact, without directly attempting to establish and monitor the hundreds of programs that are actually needed today. State and local interest should be stimulated by various methods, including awards on a competitive basis for development and improvement of individual programs. The 50 programs should be built up gradually, with linkages being carefully established among them all and with centers of research and dissemination. They should follow a common set of guidelines, and they should all have the same family name. They should cooperate with each other in an organized fashion for personnel exchange, technical assistance, and interactive evaluation. In this way, convincing and meaningful examples of effective and efficient programs will come into existence and will be forcefully brought to the attention of administrators and ABE program staff members throughout the country.

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